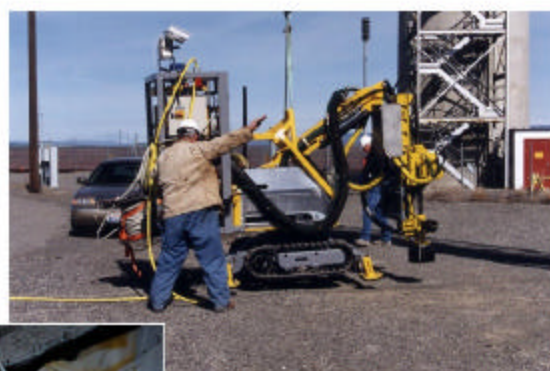
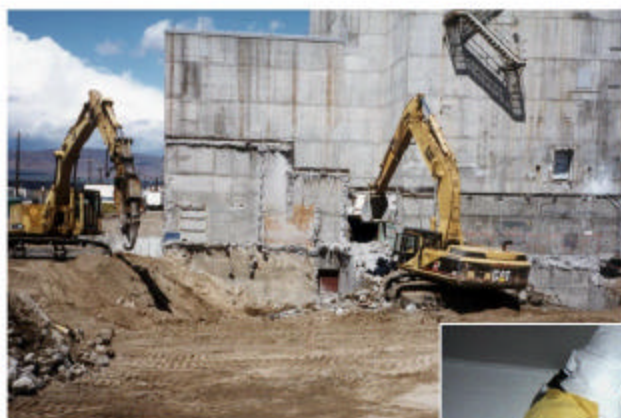


Richland Operations Office  
Environmental Restoration

# Environmental Management Performance Report

December 2000



***Focused on Progress...  
Focused on Outcomes!***



**Department of Energy**  
Richland Operations Office



**Bechtel Hanford, Inc.**  
Environmental Restoration Contractor

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT**  
**ENVIRONMENTAL RESTORATION**  
DECEMBER 2000

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# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

DECEMBER 2000

### INTRODUCTION

The monthly Environmental Restoration (ER) Environmental Management Performance Report consists of three sections: Section A - Executive Summary, Section B – Restoring the River Corridor Project Summaries, and Section C – Transitioning the Central Plateau Project Summaries. All cost, schedule, milestone commitments, performance measures, and safety data is current as of October 31. Accomplishments, Issues and Integration items are current as of November 30, unless otherwise noted.

**Section A – Executive Summary.** This section provides an executive level summary of Bechtel Hanford, Inc.'s (BHI) performance information for the current reporting month and is intended to bring to Management's attention that information considered to be most noteworthy. The Executive Summary begins with a description of notable accomplishments that are considered to have made the greatest contribution toward safe, timely, and cost-effective cleanup. Major commitments are summarized that encompass Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones, FY01 management commitment milestones, and Environmental Management (EM) corporate performance measures. Safety statistics are also included. Issues that require management and/or regulator attention and resolution status are addressed. Fiscal year-to-date ERC Project cost and schedule variance analysis is summarized. The Key Integration Activities section highlights site activities that cross contractor boundaries and demonstrates the shared value of working as a team to accomplish the work. The Executive Summary ends with a listing of major upcoming planned key events within a 90-day period.

**Section B – Restoring the River Corridor.** This section contains more detailed monthly activity information and performance status for the three projects within the 'Restoring the River Corridor' outcome. These three projects consist of the Remedial Action and Waste Disposal (RAWWD) Project, Decommissioning Projects, and the Program Management and Support (PM&S) Project.

**Section C – Transitioning the Central Plateau.** This section contains more detailed monthly activity information and performance status for the two projects within the 'Transitioning the Central Plateau' outcome. These two projects consist of the Groundwater/Vadose Zone (GW/VZ) Integration Project and the Surveillance/Maintenance and Transition (SM&T) Projects.

Information in this report is identified with a green, yellow, or red text box used as an indicator of the overall status. Green indicates work or issue resolution is satisfactory and generally meets or exceeds requirements; yellow indicates that significant improvement is required; and red indicates unsatisfactory conditions requiring immediate corrective actions.

# **Section A: Executive Summary**

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
DECEMBER 2000**

**SECTION A – EXECUTIVE SUMMARY**

**Financial / Performance Measures data as of month-end October.  
All other data as of November 30, 2000 (unless otherwise noted).**

**NOTABLE ACCOMPLISHMENTS:**

**RIVER CORRIDOR:**

*Hydroseeding was completed over the interim cover of the Environmental Restoration Disposal Facility (ERDF) Cells #1 and #2 during October. These two cells were filled with waste from Environmental Restoration (ER) remediation activities between mid-FY96 and mid-FY00.*

*The 100 B/C Area pipeline remediation contract was awarded on November 28. A Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) change request was forwarded to the regulators on October 19 proposing a new milestone date be established by January 31, 2001.*

*Laboratory results were received that indicated chromium +6 levels in the 100 D Area were below the cleanup level established in the Kd study. The regulators agreed to proceed with backfill and closeout operations. The subcontractor is scheduled to return in mid-December to complete the backfill of the remaining sites.*

*Extensive planning, including a dryrun and readiness evaluation, was performed prior to lifting the first 116-N-3 crib cover panel (located in 100 N Area) on October 30. A 200-ton crane was mobilized that is being used to individually lift the 420 panels. The panels are being removed so soil remediation of the contaminated trench can commence.*

*Design continued for the remediation of the J.A. Jones and 600-23 waste sites in support of the Columbia River Corridor Initiative. The draft design was submitted for review, and comments were received and are being incorporated. Bids were requested for the J.A. Jones and 600-23 sites on November 16, and are due on November 30.*

*During October, demolition and loadout were completed for the F Reactor fuel storage basin (FSB) above-grade structure, transfer bay, and rear-face stairwells. At DR Reactor, demolition was also completed for the rear-face stairwells, and loadout is in progress. Backfill was completed for DR Reactor FSB and valve pit areas.*

*On October 17, the action memorandum for D and H Reactors ISS was approved by the regulators.*

*Decommissioning activities in the 233-S Plutonium Concentration Facility was centered around the L-18 vessel removal during October. Electrical conduit removal was initiated, along with low-point liquid checks in the piping. The L-18 vessel structure is approximately four stories high.*

*A release plan was established for 2,500 lead bricks at a 100 H Area remediation waste site. This release plan is a result of a consent agreement and final order issued by the EPA, Region 10 to close out the findings of the 1998 multi-media inspection. Each of the 2,500 lead bricks will be surveyed and released in accordance with the requirements set forth in DOE Order 5400.5 (Radiation Protection of the Public and Environment) and all applicable DOE Secretarial memoranda addressing the release of such material.*

*On October 10-11, ER participated in the "Hanford 2012: Accelerating Cleanup and Shrinking the Site" workshop that was conducted for the Hanford Advisory Board (HAB) Committee members. The workshop was held to provide a better understanding of the drivers, assumptions, and key policy issues underlying RL's new management direction for site cleanup.*

**Green**

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**NOTABLE ACCOMPLISHMENTS continued:**

*Work progressed in developing the ER Project Baseline Update (multi-year work plan) that is scheduled for completion on December 15.*

*The FY00 ER Project year-end status was presented to HQ during their FY00 year-end briefing held in mid-November.*

**CENTRAL PLATEAU:**

*The Groundwater/Vadose Zone (GW/VZ) Integration Project conducted the eighth meeting with the Integration Project Expert Panel. This meeting focused on Columbia River issues and resolutions.*

*Historical matching was initiated with the GW/VZ System Assessment Capability (SAC) Rev. 0 capability. The purpose of historical matching is to assess the ability of SAC Rev. 0 predictions to match observations and identify improvements needed prior to the initial assessment.*

*During FY00, all ten wells planned for the In Situ Redox Manipulation (ISRM) Project were chemically injected, and chemical barrier withdrawal for two wells was completed during October. Only one well remains to complete withdrawal activities, which is scheduled for completion in December.*

*A Resource Conservation and Recovery Act (RCRA) well installation workshop was held on October 4 with Ecology, RL, Office of River Protection (ORP), and contractors. The list of recommended wells for installation in calendar year 2001 to support the Tri-Party Agreement M-24 milestone was presented to Ecology.*

*During October, two boreholes were drilled, and grab samples were submitted for analysis in support of the tritium investigation associated with the 618-11 Burial Ground.*

*All five groundwater pump and treat systems operated above the planned 90% availability levels in October. Since system inception, the five pump and treat systems have processed over 4.4 billion liters of groundwater, removing approximately 4,713 kilograms of carbon tetrachloride, 202 kilograms of chromium, and 0.91 curies of strontium.*

*Surveillance and maintenance (S&M) activities completed at B Reactor included completing leaking roof repairs and asbestos repairs. Significant deterioration in the asbestos insulation on several pipes running across the roof of B Reactor was discovered during vent sealing on the reactor roof. Work is also progressing on the B Reactor engineering evaluation/cost analysis (EE/CA) document.*

*A total of nine concrete coring samples were obtained from process cells located in U Plant in support of the Canyon Disposition Initiative (CDI). These samples were successfully ground into a slurry for analytical review. Sample contamination and dose rates were low enough that the work was accomplished in the canyon without a glove box.*

**Green**

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### DECEMBER 2000

#### MAJOR COMMITMENTS:

##### **Tri-Party Agreement Milestones:**

Fourteen TPA milestones are planned for completion during FY01. Through October, one milestone, M-24-46 "Install Two Additional Wells at SST WMA S-SX" (due December 31), was completed on September 14, fifteen weeks ahead of schedule. Two milestones are unrecoverable. A TPA change request is nearing approval that establishes a revised completion date for M-16-26B, "Complete Remediation, Backfill, and Revegetation of 51 Liquid Waste Sites and Process Effluent Pipelines in the 100 BC, 100 DR, and 100 HR Operable Units" (due February 28, 2001). A TPA change request will be prepared for M-16-26C, "Complete Remediation and Backfill of 10 Liquid Waste Sites and Process Effluent Pipelines in the 100-HR-1 Operable Unit" (due May 31, 2001), when impacts of the elevated chromium levels have been evaluated.

Green

<b>Total Tri-Party Agreement Milestones Due in FY01</b>	<b>14</b>
Total Planned Through October	0
Total Completed Through October	1

<b>Remaining Tri-Party Agreement Milestones to be Completed in FY01</b>	<b>13</b>
Forecast Ahead of Schedule	6
Forecast On Schedule	5
Forecast Unrecoverable	2

##### **EM Corporate Performance Measures:**

	<b>DWP FY01</b>	<b>FY01 Mgmt Commitments</b>	<b>Current Baseline</b>	<b>Forecast for FY01</b>	<b>Completed YTD</b>
<b>Waste Site Excavations</b>	12	12	14	14	0
<b>*Technology Deployments</b>	0				

Green

\*A technology deployment plan will be developed in January 2001 as identified in the DWP.

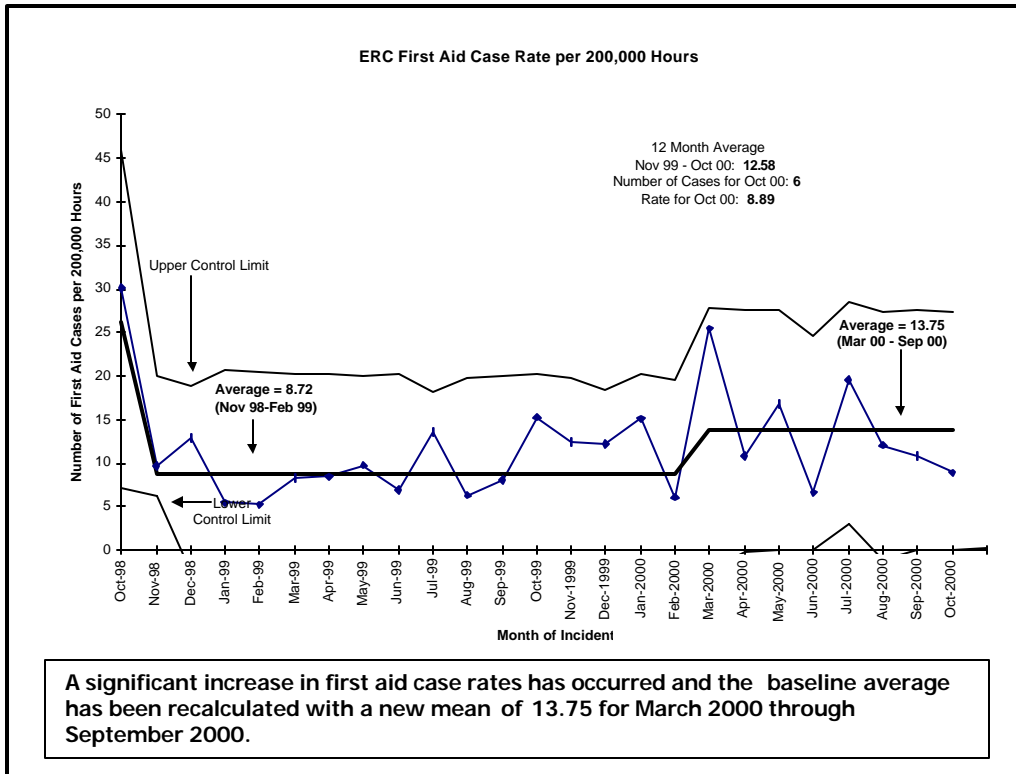
# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

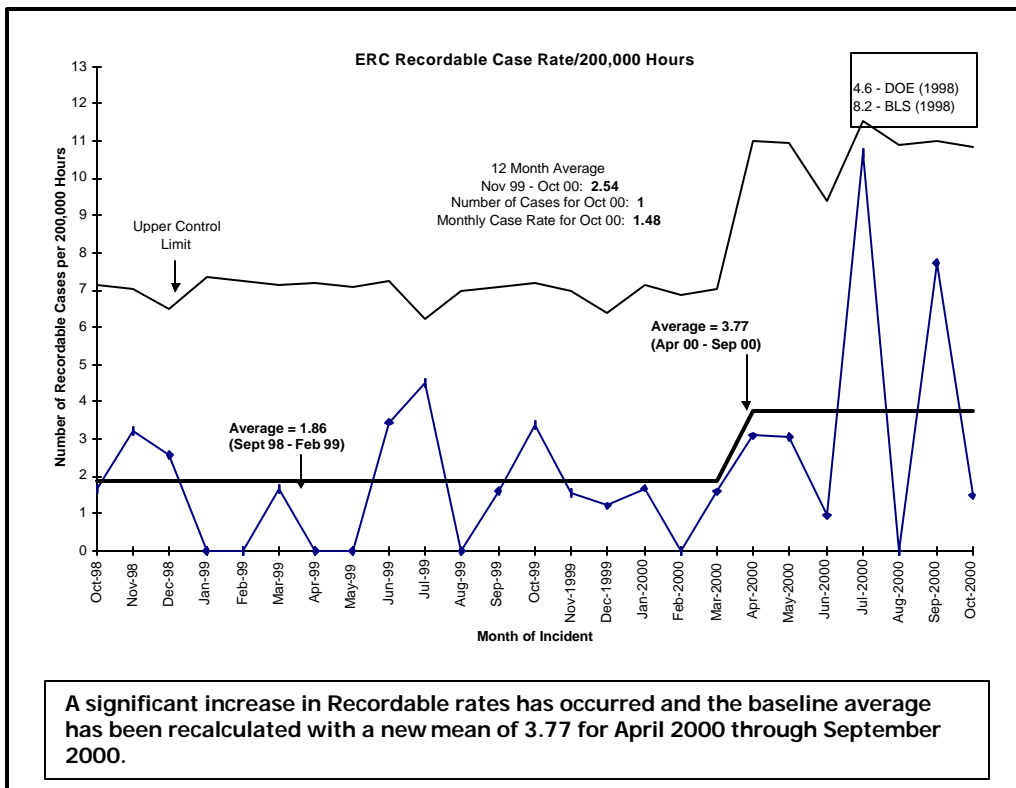
### DECEMBER 2000

#### SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract):

Yellow



Yellow

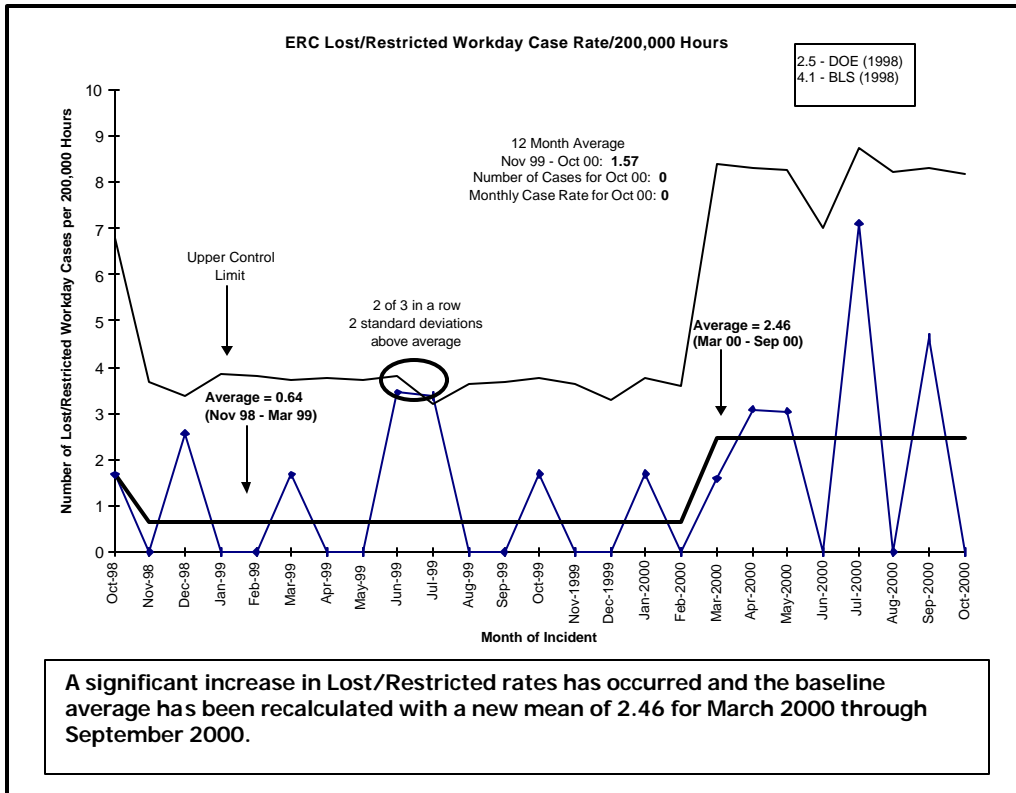


# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

DECEMBER 2000

### SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract) continued:



Yellow

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

DECEMBER 2000

### SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract) continued:

**Safety:**

	YTD	Current Month (Oct)	Current Month Comments
<b>First Aid</b>	7	7	(3) contusion/bruise/abrasion, (2) bite/sting, (2) pain
<b>OSHA Recordable</b>	1	1	(1) Procurement Specialist – right elbow (Tennis Elbow) from overuse syndrome
<b>Restricted Workday Case</b>	0	0	N/A
<b>Lost Workday Case</b>	0	0	N/A

Yellow

The ERC, as of November 25, 2000, reports 34,400 hours since the last lost workday incident. The incident occurred on November 13, 2000 and became a lost time on November 15, 2000.

Based on the increase in incidents incurred during the past 6 months, ERC management has taken the following actions:

- Incidents were discussed at the President's monthly staff meetings.
- Incidents were discussed at the monthly Operations Team Meetings.
- The topic has been discussed in project plan of the day meetings and functional staff meetings.
- The increase in injuries was also discussed in the Voluntary Protection Program (VPP) Leadership Committee meetings. VPP representatives were asked to go back to their project teams and discuss injury prevention.
- Bechtel Hanford, Inc. (BHI) president and vice president have conducted employee group meetings where all employees and management were charged to work safely, and to identify and correct workplace hazards.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### DECEMBER 2000

#### SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract) continued:

##### ISMS:

**DOE EM Performance Agreement:** Maintain and improve the approved Integrated Safety Management System (ISMS) – November 1, 2000

Green

##### Status:

- Conducted training for and initiated implementation of the new hazard evaluation process.
- Established Safety Performance Objectives/Measures for FY01.
- Held a kickoff meeting to define the process to be used to review, update, and submit for RL approval, safety performance objectives, performance measures, and commitments.
- Continued employee awareness of ISMS through the ISMS Question of the Day Program.
- Actively supporting the Hanford hosted DOE ISMS Workshop; participating in planning the workshop, coordinating breakout sessions, giving presentations, providing a poster display, and attending the workshop.

##### Conduct of Ops:

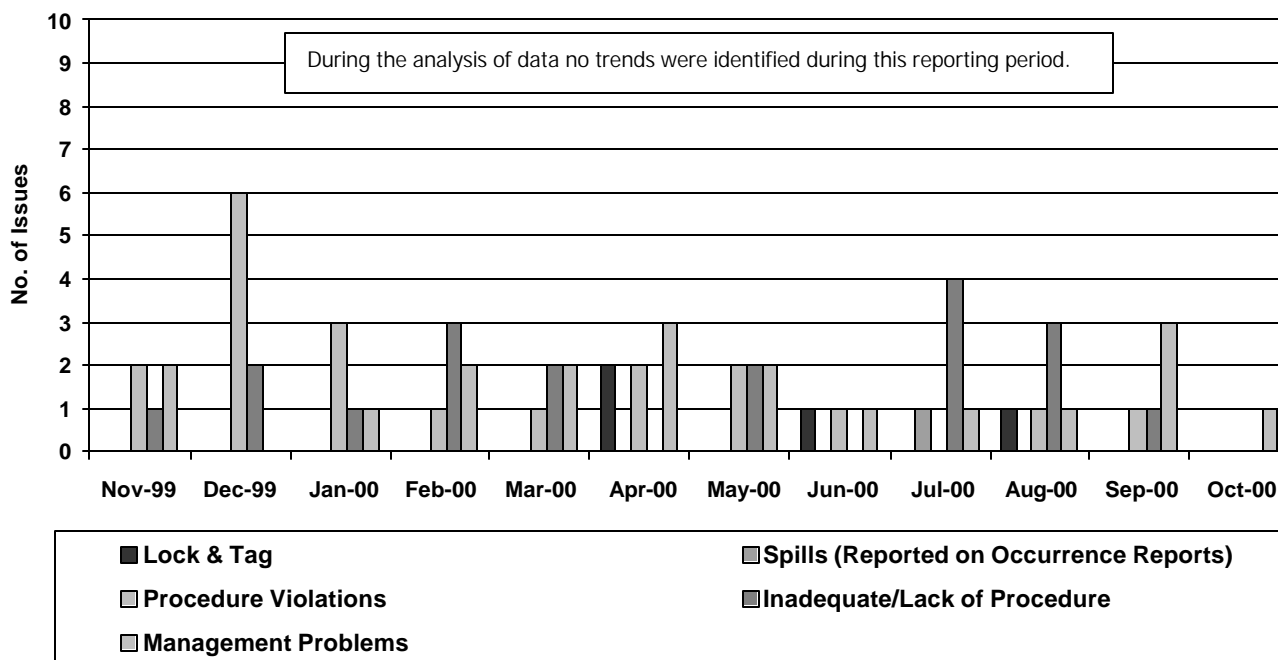
#### ERC-CATS (Corrective Action Tracking System) Trend Data 11/1/99 through 10/31/00

	Nov-99	Dec-99	Jan-00	Feb-00	Mar-00	Apr-00	May-00	Jun-00	Jul-00	Aug-00	Sep-00	Oct-00
Lock & Tag	0	0	0	0	0	2	0	1	0	1	0	0
Spills (Reported on Occurrence Reports)	0	0	0	0	0	0	0	0	1	0	0	0
Procedure Violations	2	6	3	1	1	2	2	1	0	*1	*1	0
Inadequate/Lack of Procedure	1	2	1	3	2	0	2	0	4	**3	1	0
Management Problems	2	0	1	2	2	3	2	1	1	1	***3	1

\* Trend data not received until October.

\*\*Trend data for one item not received until October.

\*\*\*Trend data for two items not received until October.



October Conduct of Ops Issues Continued on Next Page...

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT**  
**ENVIRONMENTAL RESTORATION**  
**DECEMBER 2000**

**SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract) continued:**

**October Conduct of Ops Issues:**

**Management Issue:**

**Condition Description:** On Friday, September 29, the Environmental Restoration Disposal Facility (ERDF) received a tractor-trailer load of packaged duct from the 233-S project for disposal in the ERDF. The trailer had been covered with plastic to prevent contamination of the trailer bed. Since it was late in the day Friday, the load was staged in the Radiological Material Area (RMA) for unloading at a later time.

On Tuesday, October 3, the packaged duct work was unloaded and placed in cell four at ERDF. The plastic was then removed from the trailer bed and placed alongside the duct for disposal. After the truck was brought back to the queue area, a Radiological Control Technician (RCT) performed a radiological survey to release the truck. During the survey a "hot spot" was found on the trailer. The hot spot is approximately six inches in diameter and had the following readings:

- 20,000 DPM/100cm total alpha
- 1,035 DPM/100cm removable alpha
- 75,000 DPM/100cm total beta/gamma
- less than 1,000 DPM/100cm removable beta/gamma

The information reported exceeds reporting requirements, thus an off-normal was categorized (1D.3.b).

**Corrective Action Plan:** In the future, shipments of plastic wrapped waste containing removable contamination and shipped on open trailers, will be scheduled for disposal as soon as practical upon arrival at ERDF. If the waste must be staged on a trailer prior to disposal (at ERDF or at the point of origin) for a period of time when inclement weather is forecast, then the load will be covered with waterproof tarps. This new practice will be discussed with ERDF personnel who process Waste Shipping and Receiving Plans and discussed with all ERDF Operations personnel at a future Plan of the Day (POD) meeting.

Green

**Previous Conduct of Ops Issues Not Received Until October:**

**Management Issue:**

**Condition Description:** Although site specific training is provided to facility personnel, portions of the site specific training required under the 100-NR Closure Plan were not documented, and a record of the training of at least one individual was not available in the operating record or through the Bechtel Hanford, Inc. (BHI) Training Organization.

**Corrective Action Plan:** Training has been provided and documented for applicable ERC and Subcontractor facility personnel. The training is documented under ERC Course Number 105653. ERC Training Records maintain records of training for ERC personnel. Training of the Subcontractor facility personnel are maintained by the Subcontractor with a copy held by the NR-1 Administrative Assistant. Follow-up and assurance of training completion for this and other site-related training is now conducted by the assigned Project Administrative Assistant. The Subcontractor has been directed to provide evidence of training for newly assigned personnel.

Green

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### DECEMBER 2000

#### SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract) continued:

**Condition Description:** The Closure Plan Section A2.0 "Unit Description", Subsection A2.1.10 "Security" states that a "chained link fence" with "locked gate access" is used to preclude "unknowing entry". Also posted at the unit are placards that read "Danger – Unauthorized Personnel Keep Out". Approximately 150 feet of fence, the gate, and several signs have been removed from the perimeter of the unit without modification to the Closure Plan.

**Corrective Action Plan:** The Site Closure Plan has been revised to allow for removing the perimeter fence (ref. DOE/RL-2000-16, Revision 3.0, Subsection 3.1.1.2). Signs have been re-posted on the excavation sign boundaries. The NR-1 Team has reviewed and revised, as necessary, the requirements of the Site Closure Plan. All assigned persons are now aware of the Plan and the need for change to the plan prior to implementing it.

Green

#### **Procedure Problem:**

**Condition Description:** During a DOE Heat Stress Assessment, the DOE Assessor observed a noteworthy condition that could cause a potential safety concern, although it appears did not violate any specific requirement. On 7/19/00, a D&D Worker was tasked as a fire watch for a cutting operation. The worker performing the cutting and the fire watch were both in a JLG lift approximately 45 feet in the air performing the task at F Reactor. The fire watch was standing at one end of the JLG platform and the worker conducting the cutting was at the far end of the platform. The platform is 8 feet wide. The worker performing the cutting was wearing fire retardant anti-contamination clothing Personal Protective Equipment (PPE) as specified in the hot work permit and referenced in the Health and Safety Plan (HASP). The fire watch was wearing ordinary anti-contamination PPE. The hot work procedures requires the employees to wear appropriate PPE. For personnel conducting hot work in a radiological area, red flame resistant anti-Cs are required. All other personnel are required to have appropriate PPE based on requirements stated in the job Activity Hazard Analysis or the HASP. It was determined that the worker performing the cutting would be involved in hotwork thus would wear fire retardant PPE. The fire watch would be at a safe distance from the slag and sparks and not involved in hotwork, thus the appropriate PPE would be normal anti-contamination PPE. Although the two workers were in close proximity and the platform was somewhat confined, the fire watch was not affected by the cutting operation (i.e., hot slag and sparks). Part of this determination was made due to the ambient outside temperatures during this time, which ranged from the high 90's to low 100's. After deliberation, Project Management determined to categorize this incident as an off-normal (10 C.3.b), to ensure analysis of this type of work and condition could be conducted, and an evaluation of documents such as procedures and HASPs to ensure ambiguity in documents do not pose future safety concerns.

**Corrective Action Plan:** (1) Revise BHI-SH-02, Procedure 6.4.3 to include a statement such as: "when conducting hot work from a manlift, JLG, etc. personnel in the basket should be trained as a fire watch and are required to wear PPEs as designated on the Hotwork Permit as determined by the job supervisor". (2) Revise Procedure BHI-SH-02, 6.4.3 to specifically state: "it is the responsibility of the job supervisor, after conferring with the Radiological Engineer and Safety Engineer, to specify the selection of PPE to be worn for each specific task. (3) Revise the Hotwork Permit form to include a check-off for PPE requirements. (4) Disseminate and/or review the policy changes as stated in actions 1 and 2, and the revised form in action 3, to, or with the appropriate personnel to ensure a clear understanding of the expectations outlined in the revisions made. The target date to complete these actions is December 28.

Green

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT**  
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**DECEMBER 2000**

**SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract) continued:**

**Procedure Violation:**

**Condition Description:** The process to prepare nonconformance reports was deficient for two items of measuring and testing equipment (M&TE). (1) The calibration seal placed by the subcontracted calibration lab on the Druck Pressure Indicator (702-35-40-014) was broken. The seal indicated that the calibration was void if the seal was broken. The unit was calibrated on 12/21/99 and was used on 7/12/00, 6/15/00, and 6/14/00. The equipment record for the unit was annotated that the on/off switch was changed on 6/13/00 requiring the unit to be opened and the seal broken. (2) Documentation was not available that the initial calibration data was received from the manufacturer for the newly purchased digital calipers from L.S. Starrett (702-I 5-06-002). The only documentation supplied was an inspection certificate and equipment specification.

**Corrective Action Plan:** (1) The Druck Pressure calibrator mechanical on/off switch was repaired by a trained and qualified Instrument Technician with the approval of the M&TE Coordinator. The repair had no effect on the instruments' calibration integrity per written response from Belhaven. (2) The Starrett Model 721 digital calipers were removed from service, sent to Belhaven Applied Technologies and verified to be in calibration. (3) Revise BHI-FS-01 Procedure 3.15 to address minor repairs i.e. switched, frayed probes, battery changes, etc. (4) All new equipment ordered will be sent out to the calibration prior to use or that when purchasing new equipment the vendor will be qualified and proper calibration test reports and certificates will be obtained.

Green

**REGULATORY/EXTERNAL/DOE-RL & HQ ISSUES AND REQUESTS:**

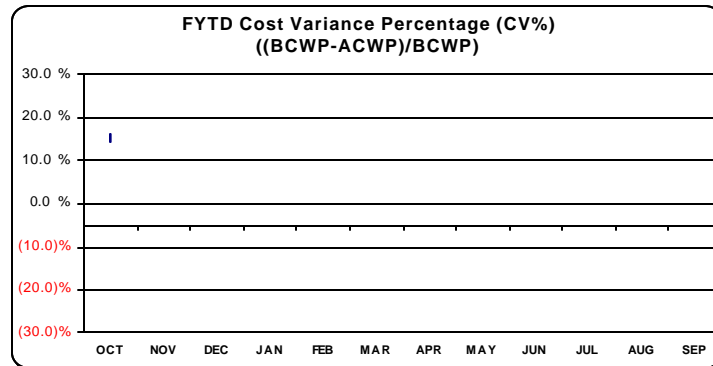
Refer to individual Project issues in the following Section B and Section C.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

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### TOTAL COST/SCHEDULE OVERVIEW (Total ER Contract):

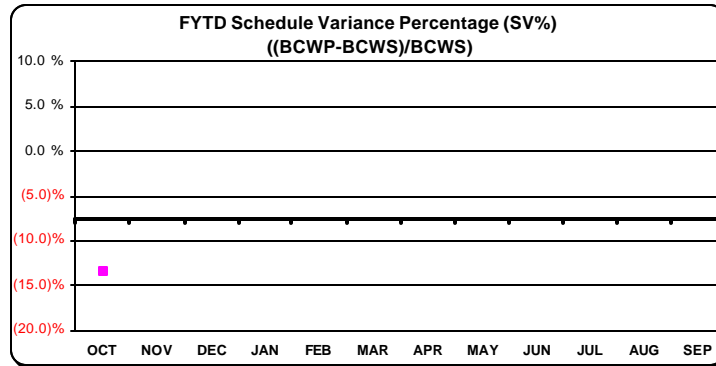


Green

*Desired performance is better than -5.0%.*

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	EAC w/ Carry Over
<b>CURRENT PERIOD</b>													
ACWP	9,656											16,615	
BCWP	11,195											15,991	
<b>FISCAL YEAR TO DATE</b>													
ACWP	9,656												
BCWP	11,195												
CV	1,539												
CV%	13.7%												
<b>EAC (Cumulative)</b>	9,656	27,187	42,390	54,353	65,694	78,680	94,462	107,082	119,436	133,541	145,455	158,937	159,070
<b>Yr End Budget Variance</b>	195												133

*For variance explanation by PBS, see Project Status Section of each project.*



Green

*Desired performance is better than -7.5%.*

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
<b>DWP</b>	11,110	10,286	12,233	10,282	10,058	11,813	14,703	11,619	11,559	13,381	11,497	13,404
<b>DWP (Accum)</b>	11,110	21,396	33,629	43,911	53,968	65,781	80,484	92,103	103,662	117,043	128,540	141,944
<b>CURRENT PERIOD</b>												
BCWS	12,782	12,434	15,347	11,177	11,368	13,567	16,480	12,698	12,442	14,638	12,370	13,962
BCWP	11,195											
<b>FISCAL YEAR TO DATE</b>												
BCWS	12,782	25,216	40,563	51,740	63,108	76,675	93,155	105,853	118,295	132,933	145,303	159,264
BCWP	11,195											
SV	(1,587)											
SV%	-12.4%											

*For variance explanation by PBS, see Project Status Section of each project.*

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### DECEMBER 2000

#### TOTAL COST/SCHEDULE OVERVIEW (Total ER Contract) continued:

#### FY01 PERFORMANCE FYTD OCTOBER 2000

(\$K)

	DWP BCWS	CURRENT BCWS	FYTD			YTD SCHEDULE VARIANCE		YTD COST VARIANCE		FY00 EAC
			BCWS	BCWP	ACWP	\$	%	\$	%	
ER01 100 Area R/A	29,617	31,330	1,935	1,999	1,703	64	3.3%	296	14.8%	31,407
ER03 300 Area R/A	4,127	4,518	196	150	112	-46	-23.5%	38	25.3%	4,473
ER04 ER Waste Disposal	17,420	17,760	1,256	1,474	1,240	218	17.4%	234	15.9%	17,580
<b>RA-Subtotal</b>	<b>51,164</b>	<b>53,608</b>	<b>3,387</b>	<b>3,623</b>	<b>3,055</b>	<b>236</b>	<b>7.0%</b>	<b>568</b>	<b>15.7%</b>	<b>53,460</b>
ER02 200 Area R/A	443	4,986	180	111	102	-69	-38.3%	9	8.1%	4,996
ER08 GW Management	24,942	29,524	2,400	1,895	1,593	-505	-21.0%	302	15.9%	29,714
VZ01 GW/VZ	10,833	11,884	1,460	1,076	917	-384	-26.3%	159	14.8%	11,893
<b>GW/VZ-Subtotal</b>	<b>36,218</b>	<b>46,394</b>	<b>4,040</b>	<b>3,082</b>	<b>2,612</b>	<b>-958</b>	<b>-23.7%</b>	<b>470</b>	<b>15.2%</b>	<b>46,603</b>
ER06 D&D	7,195	8,928	1,474	1,156	1,075	-318	-21.6%	81	7.0%	8,798
<b>DD-Subtotal</b>	<b>7,195</b>	<b>8,928</b>	<b>1,474</b>	<b>1,156</b>	<b>1,075</b>	<b>-318</b>	<b>-21.6%</b>	<b>81</b>	<b>7.0%</b>	<b>8,798</b>
ER05 S&M	13,024	14,219	1,114	980	832	-134	-12.0%	148	15.1%	14,071
ER07 Long-Term S&M	59	59	1	1	0	0	0.0%	1	100.0%	58
<b>SM-Subtotal</b>	<b>13,083</b>	<b>14,278</b>	<b>1,115</b>	<b>981</b>	<b>832</b>	<b>-134</b>	<b>-12.0%</b>	<b>149</b>	<b>15.2%</b>	<b>14,129</b>
ER10 ERC PM&S	28,984	30,756	2,326	2,312	1,995	-14	-0.6%	317	13.7%	30,780
ER10 RL PM&S	5,300	5,300	440	41	87	-399	-90.7%	-46	-112.2%	5,300
<b>PM-Subtotal</b>	<b>34,284</b>	<b>36,056</b>	<b>2,766</b>	<b>2,353</b>	<b>2,082</b>	<b>-413</b>	<b>-14.9%</b>	<b>271</b>	<b>11.5%</b>	<b>36,080</b>
<b>GRAND TOTAL</b>	<b>141,944</b>	<b>159,264</b>	<b>12,782</b>	<b>11,195</b>	<b>9,656</b>	<b>-1,587</b>	<b>-12.4%</b>	<b>1,539</b>	<b>13.7%</b>	<b>159,070</b>

Green

#### Cost/Schedule Status:

#### **Cost Variance Summary**

At the end of October, the ER Project had performed \$11.2M worth of work, at a cost of \$9.7M. This results in a favorable cost variance of \$1.5M (+13.7%). The positive cost variance is attributed to less labor required to complete remediation Closeout Verification Packages (CVPs) due to use of a streamlined format and consolidation of waste sites; future ERDF overtime hours that will be used in third and fourth quarters were level loaded throughout the fiscal year; groundwater monitoring and vadose zone accruals experienced processing delay; less labor required for chemical treatment of two groundwater monitoring systems; radiation survey costs were less than planned for REDOX and U Plant; and program management year-end accrual reversals were not reacrued in October.

#### **Schedule Variance Summary**

Through October, the ER Project is \$1.6M (-12.4%) behind schedule. The negative schedule variance is attributed to unplanned sharing of RCRA well drilling crews to support 618-11 Burial Ground tritium investigation; addition of new tritium investigation activities; groundwater modeling and monitoring activities delayed while completing FY00 carryover higher-priority work; GW/VZ Characterization of Systems scope experienced late start due to resources working other project activities and delay in obtaining subcontractor, and GW/VZ Science and Technology activities delayed due to resources working on FY00 carryover work, as well as contractor delays in distribution of contaminated samples; D and H Reactor ISS work delayed due to awaiting approval for removal action work plans, safety evaluation report, and various work packages; F Reactor backfill delayed due to awaiting analysis results; replanning required for F Reactor water removal system; and late billing of site-wide assessments.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### DECEMBER 2000

#### PERFORMANCE OBJECTIVES:

*Refer to individual Project issues in the following Section B and Section C.*

#### KEY INTEGRATION ACTIVITIES:

##### **RIVER CORRIDOR:**

*A Memorandum of Understanding (MOU) was signed with Energy Northwest for transportation and disposal of Hanford Generating Plant wastes. Energy Northwest will begin dismantlement of the Hanford Generating Plant in January with removal of the pipe trestle that connects the plant with the 100 N Reactor complex. The overall dismantling project is expected to take two years to complete. All materials that are radiologically contaminated will be sent to ERDF for disposal.*

*Bechtel-Hanford, Inc. (BHI) closed a significant RL action item in October with implementation of an Employee Job Task Analysis (EJTA) program for subcontractors. BHI, along with Pacific Northwest National Laboratory (PNNL) and Fluor Hanford (FH), spent two years in developing a site-wide program to assess hazards and perform medical monitoring for subcontractor personnel who might be at risk of potential exposure. The primary implementation tool for the Hanford contractors involves incorporation of specific contract language and partnering with the subcontractor to ensure employees who are at risk of exposure are captured in the EJTA database.*

*In October, a joint BHI, FH, and PNNL team conducted a "Hanford Analytical Services" presentation at the National Sample Management Organization Workshop at Oak Ridge National Laboratory. Hanford Analytical Services is a joint RL, BHI, FH, and PNNL board that coordinates laboratory services for the Hanford Site. HQ representatives complimented the team on their presentation and stated that the Hanford Analytical Services board provides a good model for other DOE sites.*

##### **CENTRAL PLATEAU:**

*ER continues to work closely with the River Protection Project (RPP) on vadose zone project plans and issues. RPP project manager presents related GW/VZ status to ER management at monthly ER project reviews.*

**Green**

#### UPCOMING PLANNED KEY EVENTS:

*Tri-Party Agreement Milestone M-13-25, Submit Uranium Rich Process Waste Group (200-PW-2) Work Plan, due 12/31/00.*

*Tri-Party Agreement Milestone M-13-00K, Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan, due 12/31/00.*

*Tri-Party Agreement Milestone M-16-27A, Complete 100-HR-3 Phase I, ISRM Barrier Emplacement, due 12/31/00.*

*Tri-Party Agreement Milestone M-24-47, Install 4 Additional Wells at SST WMA T, due 12/31/00.*

*Tri-Party Agreement Milestone M-24-48, Install 4 Additional Wells at SST WMA TX-TY, due 12/31/00.*

*Tri-Party Agreement Milestone M-24-00L, Install RCRA Groundwater Monitoring Wells Up to 50 in CY 2000, due 12/31/00.*

**Green**

Richland Operations Office  
Environmental Restoration

# Environmental Management Performance Report

## Section B - River Corridor Information

December 2000

- Remedial Action and Waste Disposal Project
- Decommissioning Projects (Interim Safe Storage and 233-S)
- Program Management and Support



*Focused on Progress...*

*Focused on Outcomes!*



**Department of Energy**  
Richland Operations Office



**Bechtel Hanford, Inc.**  
Environmental Restoration Contractor

# **Remedial Action and Waste Disposal Project (RAWD)**

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
DECEMBER 2000**

## SECTION B – RESTORING THE RIVER CORRIDOR

Financial / Performance Measures data as of month-end October.  
All other data as of November 30, 2000 (unless otherwise noted).

### Remedial Action & Waste Disposal Project (RAWDP):

#### ACCOMPLISHMENTS: RAWDP

**Environmental Restoration Disposal Facility (ERDF) Transportation and Operations:** Hydroseeding was completed over the interim cover of ERDF Cells #1 and #2 during October. These two cells were filled with waste from ER remediation activities between mid-FY96 and mid-FY00.

During October, shipments totaling 34,385 metric tons (37,903 tons) of contaminated waste were transported to the ERDF. This is slightly ahead of planned quantities. To date, 2,341,146 metric tons (2,580,685 tons) of material have been received and placed in the disposal facility.

**100 B/C Area Remediation:** Six bids were received for the remediation of the 100 B/C Area pipelines on September 29. Clarification questions were sent to each bidder on October 13. Responses to clarification questions were received on October 18. Final bidder evaluation was completed on October 30, and the contract was awarded on November 28.

**100 D Area Remediation:** Analysis of closeout sampling results and preparation of Closeout Verification Packages (CVPs) progressed for 100 D Area remediated waste sites. During October, five CVPs were transmitted to the regulators. Laboratory results indicated that chromium +6 levels in the 100 D Area were below the cleanup level established in the Kd study. The regulators agreed to proceed with backfill concurrence and closeout. The subcontractor is scheduled to return in mid-December to complete the backfill of the remaining sites.

**100 F Area Remediation:** Excavation and removal were completed for the 1.5-meter (60-inch) diameter steel pipeline and the 1.8-meter (72-inch) diameter reinforced concrete pipeline between the retention basin and the outfall structure in the 100 F Area. Overburden removal was completed and removal started for the 1.1-meter (42-inch) diameter reinforced concrete pipeline between the reactor building and the retention basin.

A baseline change proposal (BCP) was submitted for the excavation of 7,257 metric tons (8,000 tons) of additional waste at the north and south segments of the 100-F-19 effluent underground pipelines.

**100 H Area Remediation:** Baseline excavation activities were completed in the 100 H Area in August; however, plumes were encountered during verification sampling. A BCP was submitted for the excavation of 6,804 metric tons (7,500 tons) of additional waste at 100-H-24 substation (PCBs), 116-H-7 retention basin (PCBs) and 100-H-21 pipelines (lead). Performing up to three potholes in the 116-H-7 retention basin was also accomplished in an attempt to identify the extent of the chromium +6 contamination.

Analysis of closeout sampling results and preparation of CVPs for the 100 H Area Operable Unit are progressing.



A BCP was submitted for implementation of the Supplemental Environmental Project (SEP) "Radiological Survey and Release of 100 H Reactor Lead Bricks for Reuse." This is part of the Multi Media Inspection Consent Agreement Final Order.

Green

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

DECEMBER 2000

ACCOMPLISHMENTS continued: RAWD	
<p><b>100 N Area Remediation:</b> Saw cutting activities on the 116-N-3 crib cover panel joints were performed in preparation for removal of the cover panels. A 181-metric ton (200-ton) crane was mobilized on site that is being used to individually lift the 420 panels. Each panel measures approximately 1.2 meters by 10.7 meters (4 feet by 35 feet) and weighs between 3 to 4 metric tons (7,000 to 9,000 pounds). Extensive planning, including a dry run and readiness evaluation, was performed prior to lifting the first crib cover panel on October 30.</p> <p>During October, walkdown activities were performed to identify 100-NR-1 source sites not requiring decontamination and decommissioning of buildings prior to remediation.</p> <p><b>100/300 Area Assessments:</b> Kickoff meetings were held to initiate the 100/300 Area design/assessment scope.</p> <p><b>300 Area Remediation:</b> The ERC commercial analysis of the 618-4 Burial Ground drummed waste treatment was completed and a recommendation was forwarded to for their concurrence.</p> <p><b>300/600 Area Remediation:</b> The design process continues for the J.A. Jones and 600-23 waste sites in support of the Columbia River Corridor Initiative. The design was submitted for review, and comments were received and are being incorporated. Design quantities were significantly increased at both waste sites based on the remedial design ground penetrating radar (GPR) and electromagnetic induction (EMI) geophysical surveys. Bids were requested for the J.A. Jones 1 and 600-23 sites on November 16, and are due on November 30. Site walkdowns were conducted on November 20.</p>	
SAFETY/ISMS/CONDUCT OF OPERATIONS: RAWD	
See Executive Summary.	
BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: RAWD	
<p><b>Remote Panel Removal:</b> Due to Radiological concerns regarding demolition of the 116-N-3 Crib, the Remediation Subcontractor (Foster Wheeler) designed a "slide-on" clamp to be used with a crane to remotely lift the crib cover panels and place them in a size reduction area for processing. The original plan required laborers to walk on the crib for each lift to handle "tag" lines necessary for controlling the clamps. The Lampson crane engineer recommended the placement of "tag" lines rigged to the crane and controlled by the crane operator, thus eliminating the need for laborers to walk on the crib. This recommendation has resulted in a 100% remote panel removal operation and a significant reduction in personnel exposure.</p>	
LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: RAWD	
None identified at this time.	
MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): RAWD	
<ul style="list-style-type: none"> <li><b>DOE Secretarial:</b> None identified at this time.</li> </ul>	
<ul style="list-style-type: none"> <li><b>DOE EM Performance Agreement:</b> None identified at this time.</li> </ul>	

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

DECEMBER 2000

### MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS) continued: RAWD

- TPA Milestones:**

Milestone	Description	Due Date	(F)/(A) Date
<b>*M-16-26B</b>	Complete Remediation, Backfill and Revegetation of 51 Liquid Waste Sites and Process Effluent Pipelines in the 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, and 100-HR-1 Operable Units as defined in the Remedial Design Report/Remedial Action Work Plan for the 100 Area	2/28/01	2/25/05 (F)
<b>**M-16-26C</b>	Complete Remediation and Backfill of 10 Liquid Waste Sites and Process Effluent Pipelines in the 100-HR-1 Operable Unit as defined in Remedial Design Report/Remedial Action Work Plan for the 100 Area	5/31/01	9/13/01 (F)
<b>M-16-07B</b>	Complete Remediation and Backfill of 22 Liquid Waste Sites and Process Effluent Pipelines in the 100-DR-1 and 100-DR-2 Operable Units as defined in Remedial Design Report/Remedial Action Work Plan for the 100 Area	7/31/01	2/20/01 (F)
<b>***M-16-03E</b>	Complete Remediation of Waste Sites in 300-FF-1 Operable Unit (excluding the 618-4 Burial Ground), to include Excavation, Verification, and Backfilling	9/30/01	8/31/01 (F)
<b>M-16-00F</b>	Establish Date for Completion of all 100 Area Remedial Actions	12/31/01	12/31/01 (F)

Green

*\*Unrecoverable due to prior year funding constraints. Bid proposals were received on September 29 for the 100 B/C pipeline remediation, and contract was awarded on November 28. A Tri-Party Agreement (TPA) change request was forwarded to the regulators proposing a new milestone date be established by January 31, 2001.*

*\*\*Elevated chromium levels were detected during closeout verification sampling. A TPA change package will be prepared after impacts have been evaluated.*

*\*\*\*Closeout Verification Package content is undetermined. Early completion is in jeopardy.*

- DNFSB Commitment:**

*None identified at this time.*

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

DECEMBER 2000

### PERFORMANCE OBJECTIVES: RAWD

PI	% FY01 Fee Pool Less 10% for Comprehensive	PI Allocation of Fee	Task	Status
RAWD	70%	80%	<ul style="list-style-type: none"> <li>490,000 Tons by 9/30/01</li> </ul>	On schedule.
		10%	<ul style="list-style-type: none"> <li>Backfill 16 Sites by 9/30/01</li> </ul>	On schedule.
		10%	<ul style="list-style-type: none"> <li>50,000 Additional Tons by 9/30/01 <b>(*Stretch)</b></li> </ul> <p>CV &lt;5.0%; SV &lt;7.5% for grouped PBS ER01, ER03, ER04</p>	None commenced as of 10/31/00.

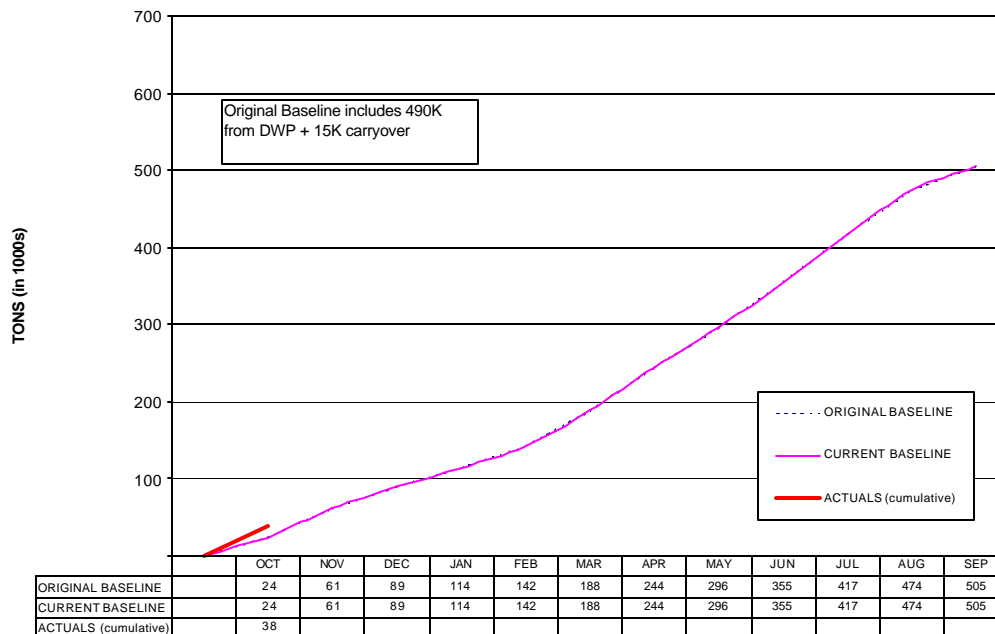
Green

### PERFORMANCE MEASURES/METRICS: RAWD – (River and Plateau)

	DWP FY01	FY01Mgmt Commitments	Current Baseline (Incl. Baseline Changes)	Forecast For FY01	Completed YTD
Waste Sites Excavated	12	12	14	14	0

Green

Remedial Action and Waste Disposal Project  
Cumulative Tons to ERDF



# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT ENVIRONMENTAL RESTORATION

DECEMBER 2000

## STRETCH AND SUPERSTRETCH GOALS: RAWD

FY01 RAWD "Stretch" Goals	Estimated Tons (K)	Approved Tons (K)
<i>Remediate Additional 50K Tons of Contaminated Soil by 9/30/01</i> <i>(1) Additional Contamination Soil at 100-F Pipelines</i> <i>(2) Additional Contamination Material at 100-H Sites</i>	50K	7,500K 8,000K
<i>S/Total Remedial Action Stretch Goals:</i>	50K	15,500K

Green

## PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE: RAWD

- Schedule:**

Remedial Action & Waste Disposal Project	BCWS	BCWP	Variance
	\$K	\$K	\$K
<i>ER01 100 Area Remedial Actions</i>	1,935	1,999	64
<i>ER03 300 Area Remedial Actions</i>	196	150	-46
<i>ER04 ER Waste Disposal</i>	1,256	1,474	218
<b>TOTAL Remedial Actions</b>	<b>3,387</b>	<b>3,623</b>	<b>236</b>

Green

### **PBS-ER01 – 100 Area Remedial Action**

*Schedule Variance = -\$64K; 3.3%*

**Cause:** The positive schedule variance is due to less sharing of resources between waste sites and greater than anticipated production rates.

**Resolution:** A BCP is being prepared to reflect actual work sequencing and production rates; continuation of these production and labor trends will provide opportunities to accomplish additional stretch and other "emerging" work.

**Cause:** Slower progress than originally planned at the 100-NR-1 remediation site due to complexities in the performance of the work scope.

**Resolution:** Schedule recovery can be achieved by increasing the maximum number of containers allowed to be shipped to ERDF by the Subcontractor during excavation of the 116-N-3 Crib.

### **PBS-ER03 – 300 Area Remedial Action**

*Schedule Variance = (\$46K); (23.5%)*

**Cause:** Issues with the 300-FF-1 CVP and delays in water system installation.

**Resolution:** Discussions with the regulators on the CVP have been initiated. Phase II of the waterline tie-in has been scheduled with the subcontractor for early November.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT ENVIRONMENTAL RESTORATION

DECEMBER 2000

## PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE continued: RAWD)

### **PBS-ER04 – Environmental Restoration Waste Disposal**

*Schedule Variance = \$218K; 17.4%*

**Cause:** Reflects waste disposal and transportation efficiencies due to increased waste volumes from 100 Area Remediation sites.

**Resolution:** None.

• **Cost:**

Remedial Action & Waste Disposal Project	BCWP	ACWP	Variance
	\$K	\$K	\$K
ER01 100 Area Remedial Actions	1,999	1,703	296
ER03 300 Area Remedial Actions	150	112	38
ER04 ER Waste Disposal	1,474	1,240	234
<b>TOTAL Remedial Actions</b>	<b>3,623</b>	<b>3,055</b>	<b>568</b>

Green

### **PBS-ER01 – 100 Area Remedial Action**

*Cost Variance = \$296K; 14.8%*

**Cause:** Less labor was required than anticipated to prepare CVPs due to the use of a "streamlined" format and the consolidation of waste sites.

**Resolution:** Incorporated in EAC. Underrun will be used to perform additional remediation work.

### **PBS-ER03 – 300 Area Remedial Action**

*Cost Variance = \$38K; 25.3%*

N/A

### **PBS-ER04 – Environmental Restoration Waste Disposal**

*Cost Variance = \$234K; 15.9%*

**Cause:** Overtime hours that will be used in third and fourth quarters were level loaded throughout the fiscal year; performed additional soil quantities resulting in a lower unit cost.

**Resolution:** EAC loading of overtime hours corrected; EAC reduced by the man hours saved.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### DECEMBER 2000

REGULATORY ISSUES: RAWD	
<p><b>Tri-Party Agreement Milestone M-16-26B:</b> M-16-26B, "Complete Remediation, Backfill, and Revegetation of 51 Liquid Waste Sites and Process Effluent Pipelines in the B/C, DR, and HR Operable Units" by February 28, will be missed due to lack of funding in FY99 and FY00 for 100 B/C pipeline remediation activities.</p> <p><b>Status:</b> Bid proposals were received on September 29 for the 100 B/C pipeline remediation, and contract was awarded on November 28. A Tri-Party Agreement change request was forwarded to the regulators proposing a new milestone date be established by January 31.</p>	<div style="border: 3px double black; padding: 5px; width: fit-content; margin: 0 auto;">Green</div>
<p><b>Tri-Party Agreement Milestone M-16-26C:</b> M-16-26C, "Complete Remediation and Backfill of 10 Liquid Waste Sites and Process Effluent Pipelines in the 100-HR-1 Operable Unit" by May 31, will be missed due to unanticipated elevated arsenic levels (resolved) and chromium sample analysis results that are above the remedial action goals encountered during confirmation sampling/verification activities.</p> <p><b>Status:</b> When the impact of the elevated chromium results is evaluated, a Tri-Party Agreement change package will be prepared.</p>	<div style="border: 3px double black; padding: 5px; width: fit-content; margin: 0 auto;">Green</div>
<p><b>300 Area Uranium Cleanup Level:</b> EPA accepted the Preliminary Remediation Goal developed for uranium by the ERC. However, Ecology had additional concerns with protection of groundwater from uranium contamination in the 300 Area. EPA requires a Kd study to address uranium mobility in the 300 Area. This study will consist of obtaining uranium-contaminated samples and performing leach rates testing with follow-on absorption tests resulting in a Kd value.</p> <p><b>Status:</b> A data quality objective (DQO) is nearing completion to develop scope for the Kd study. This study is not currently funded in the FY01 Detailed Work Plan (DWP). FY01 funded scope will be completed, and a BCP will be prepared to secure funding for the remainder of workscope developed as a result of the DQO.</p>	<div style="border: 3px double black; padding: 5px; width: fit-content; margin: 0 auto;">Green</div>
<p><b>100 D Area Backfill:</b> Backfill concurrence for the remaining north segment of the 100-DR north pipeline continues to be delayed pending resolution of a chromium issue. Additional samples have been collected and independently analyzed by three laboratories, with conflicting results. Ecology prefers that another qualified laboratory be utilized for further analysis.</p> <p><b>Status:</b> Results from a fourth qualified laboratory confirmed that chromium concentration are not present above the cleanup level established in the Kd study. Regulators have agreed to proceed with backfill concurrence and closeout.</p>	<div style="border: 3px double black; padding: 5px; width: fit-content; margin: 0 auto;">Green</div>
EXTERNAL ISSUES (i.e. HAB, Congress, etc.): RAWD	
None identified at this time.	
DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): RAWD	
None identified at this time.	
INTEGRATION ACTIVITIES: RAWD	
<p>A Memorandum of Understanding (MOU) was signed with Energy Northwest for transportation and disposal of Hanford Generating Plant wastes. Energy Northwest will begin dismantlement of the Hanford Generating Plant in January with removal of the pipe trestle that connects the plant with the 100 N Reactor complex. The overall dismantling project is expected to take two years to complete. All materials that are radiologically contaminated will be sent to ERDF for disposal.</p>	<div style="border: 3px double black; padding: 5px; width: fit-content; margin: 0 auto;">Green</div>

# Decommissioning Projects (D&D)

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
DECEMBER 2000**

## SECTION B – RESTORING THE RIVER CORRIDOR

**Financial / Performance Measures data as of month-end October.  
All other data as of November 30, 2000 (unless otherwise noted).**

### Decommissioning Projects (D&D)

#### ACCOMPLISHMENTS: *D&D*

**F and DR Reactor Interim Safe Storage (ISS):** During October, demolition and loadout were completed for the F Reactor fuel storage basin (FSB) above-grade structure, transfer bay, and rear-face stairwells. At DR Reactor, demolition was also completed for the rear-face stairwells, and loadout is in progress. Backfill was completed for DR Reactor FSB and valve pit areas.

**D and H Reactor ISS:** On October 17, the action memorandum for D and H Reactors ISS was approved by the regulators. Several other documents in support of the D and H Reactor ISS are nearing completion. The H Reactor Auditable Safety Analysis (ASA), Rev. 0 was transmitted to RL on October 12 for approval. The Safety Evaluation Report (SAR) is being drafted for H Reactor. On October 16, the draft D and H Reactor Waste Designation Sampling and Analysis Plan (SAP) was transmitted to the regulators for review and comments. Comments were also incorporated into the draft D and H Reactor's Removal Action Work Plan and was forwarded to RL on October 25 for review.

At D Reactor, support areas are being established for asbestos abatement activities in reactor Areas 1 and 2. Hazardous materials were also removed from Areas 1 and 2. Craft walkdowns were performed prior to asbestos abatement work package completion.

**233-S Plutonium Concentration Facility Decommissioning Project:** Good progress continues to be made at the 233-S facility, despite the confined workspace environment and contamination hazards that are encountered during each entry. In October, 233-S facility activities included the following:

- Installation of covers on all roof exhaust ports.
- Conducting pre-job and mock-up training for the L-18 (approximately four stories high) vessel pipe tapping process.
- Establishment of contamination control areas in preparation for L-18 vessel low point checks.
- Initiation of low point checks (pipe tapping) on L-18 vessel piping. No liquids were discovered.
- Initiation of electrical conduit removal from the L-18 vessel area on the second, third, and fourth floors.
- Completion of east weather enclosure decontamination and set-up for the continuation of waste removal.
- Transmission of the revised fire hazards evaluation to RL for review and approval.
- Submission of the Authorization Basis annual update for distribution.

Green

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

DECEMBER 2000

<b>SAFETY/ISMS/CONDUCT OF OPERATIONS: D&amp;D</b>											
<i>See Executive Summary.</i>											
<b>BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: D&amp;D</b>											
<i>None identified at this time.</i>											
<b>LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: D&amp;D</b>											
<i>None identified at this time.</i>											
<b>MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): D&amp;D</b>											
<ul style="list-style-type: none"> <li><b>DOE Secretarial:</b> <i>None identified at this time.</i></li> </ul>											
<ul style="list-style-type: none"> <li><b>DOE EM Performance Agreement:</b> <i>None identified at this time.</i></li> </ul>											
<ul style="list-style-type: none"> <li><b>TPA Milestones:</b></li> </ul> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: black; color: white;"> <th style="width: 15%;">Milestone</th> <th style="width: 45%;">Description</th> <th style="width: 15%;">Due Date</th> <th style="width: 25%;">(F)/(A) Date</th> </tr> </thead> <tbody> <tr> <td style="background-color: #d3d3d3;"><b>*M-93-12</b></td> <td><i>Issue 105-DR Disposition Competitive Procurement Package for Ascertaining the Most Effective and Efficient Approach to FEIS ROD Selected Alternative Implementation (....)</i></td> <td><i>2/28/02</i></td> <td></td> </tr> </tbody> </table> <div style="text-align: right; margin-top: 10px;"> <div style="border: 3px double black; padding: 5px; display: inline-block;">Green</div> </div> <p><i>*Regulators have agreed to renegotiate this milestone since DR Reactor ISS is scheduled for completion in FY02. Discussions are underway.</i></p>				Milestone	Description	Due Date	(F)/(A) Date	<b>*M-93-12</b>	<i>Issue 105-DR Disposition Competitive Procurement Package for Ascertaining the Most Effective and Efficient Approach to FEIS ROD Selected Alternative Implementation (....)</i>	<i>2/28/02</i>	
Milestone	Description	Due Date	(F)/(A) Date								
<b>*M-93-12</b>	<i>Issue 105-DR Disposition Competitive Procurement Package for Ascertaining the Most Effective and Efficient Approach to FEIS ROD Selected Alternative Implementation (....)</i>	<i>2/28/02</i>									
<ul style="list-style-type: none"> <li><b>DNFSB Commitment:</b> <i>None identified at this time.</i></li> </ul>											

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT ENVIRONMENTAL RESTORATION

DECEMBER 2000

## PERFORMANCE OBJECTIVES: D&D

PI	% FY01 Fee Pool Less 10% for Comprehensive	PI Allocation of Fee	Task	Status
<b>233-S</b>	13% plus FY02 equivalent portion	76%	<ul style="list-style-type: none"> <li>8 vessels by 6/30/02</li> </ul>	Critical path activity on schedule.
		24%	<ul style="list-style-type: none"> <li>7 vessels by 6/30/02 (<b>*Stretch</b>)</li> </ul> <p>CV &lt;5.0%; SV &lt;7.5% for PBS ER-06</p>	None commenced as of 10/31/00.
<b>ISS</b>	11%	35%	<ul style="list-style-type: none"> <li>D Reactor Major Tasks by 9/30/01</li> </ul>	Critical path activity on schedule, however need authorization funding to proceed with work by 12/15/00.
		15%	<ul style="list-style-type: none"> <li>DR Reactor Major Tasks by 9/30/01</li> </ul>	
		35%	<ul style="list-style-type: none"> <li>F Reactor Major Tasks by 9/30/01</li> </ul>	
		15%	<ul style="list-style-type: none"> <li>H Reactor Major Tasks by 9/30/01</li> </ul> <p>CV &lt;5.0%; SV &lt;7.5% for PBS ER-06</p>	

Green

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

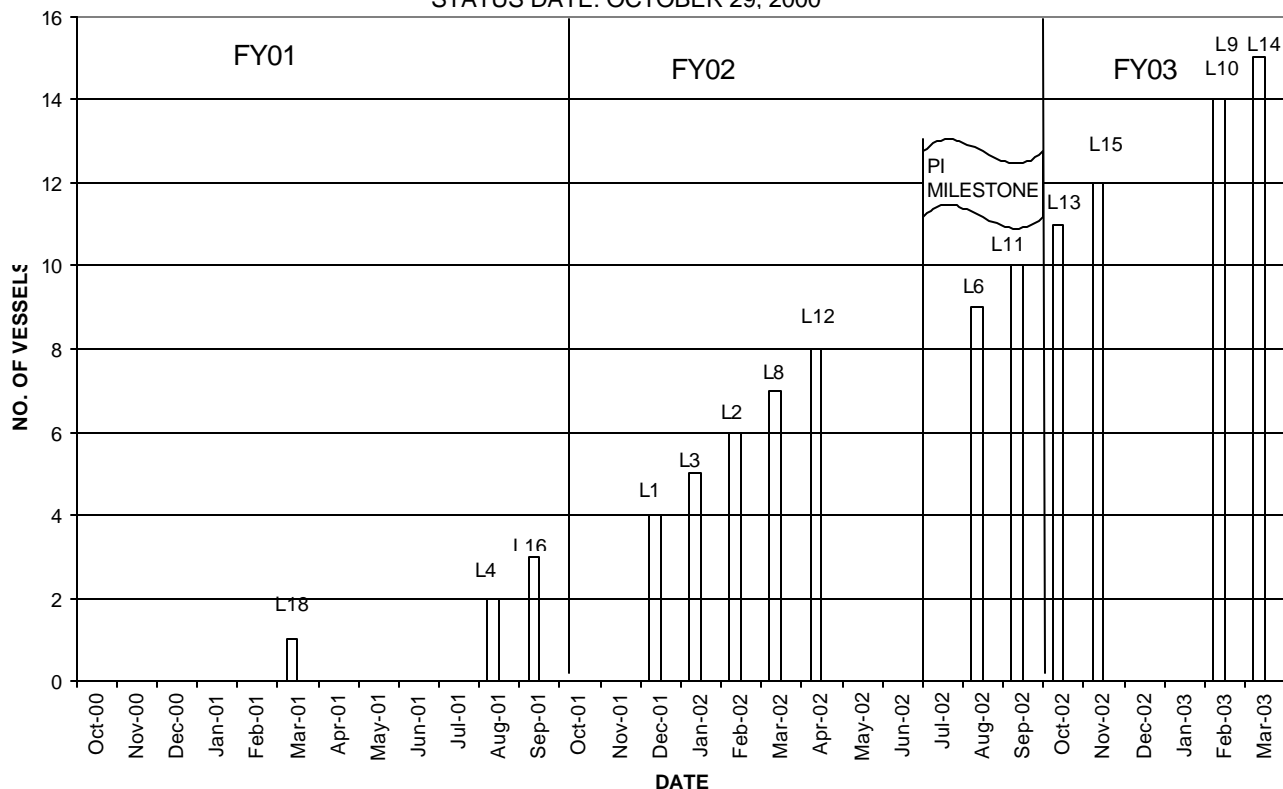
DECEMBER 2000

### PERFORMANCE MEASURES/METRICS: D&D

Green

#### 233-S VESSEL REMOVAL METRIC

STATUS DATE: OCTOBER 29, 2000



\*The performance incentive (PI) was approved on 11/1/00; BCP approved to accelerate vessel removal approved on 11/28/00. Vessel removal graph will be revised to reflect work scope acceleration (7 vessels in FY01; 8 in FY02) next reporting period.

### STRETCH AND SUPERSTRETCH GOALS: D&D

FY01 D&D "Stretch" Goals	Estimated PI Dollars (K)	Approved BCPs (K)
Remove 4 Vessels by 9/30/01 and a Minimum of 8 Vessels by 6/30/02 (Regular Fee)	\$318.2K	
Remove 7 Additional Vessels by 6/30/02 for a total of 15 Vessels (Stretch Only)		
<b>S/Total D&amp;D Stretch Goals:</b>	<b>\$318.2K</b>	<b>\$0.0K</b>

Green

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT ENVIRONMENTAL RESTORATION

DECEMBER 2000

## PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE): D&D

- **Schedule:**

Decommissioning Projects	BCWS	BCWP	Variance
	\$K	\$K	\$K
ER06 Decontamination & Decommissioning	1,474	1,156	-318
<b>Total D&amp;D</b>	<b>1,474</b>	<b>1,156</b>	<b>-318</b>

Green

**PBS-ER06 – Decontamination and Decommissioning**

Schedule Variance = **(\$318K); (21.6%)**

**Cause:** D Reactor asbestos abatement work and H Reactor ISS planning has been delayed due to deferral of approval of Removal Action Work Plan (RAW). Delays were also encountered in the development of the asbestos abatement work plans. Asbestos work plan reviewers (CIH) expectation was to divide the remedial action work plans by the type of asbestos, which differed from submittal. This new direction was not communicated until the work plan was submitted for review.

**Resolution:** Received Action Memo in November. Project currently revising RAW. Verbal approval to proceed with some work was received from Ecology in late October.

**Cause:** Due to schedule delays at D Reactor and early completion of F Reactor FSB demolition, resources and equipment were available to perform DR stairwell demolition early.

**Resolution:** None.

- **Cost:**

Decommissioning Projects	BCWP	ACWP	Variance
	\$K	\$K	\$K
ER06 Decontamination & Decommissioning	1,156	1,075	81
<b>TOTAL D&amp;D</b>	<b>1,156</b>	<b>1,075</b>	<b>81</b>

Green

**PBS-ER06 – Decontamination and Decommissioning**

Cost Variance = **+81K; 7.0%**

**Cause:** Incorporated F Reactor stairwell demolition plan. As a result of Craft input, project reduced duration/resources and equipment planned to prep and demolish stairwells.

**Resolution:** Trend prepared to reduce EAC; will incorporate into Lesson Learned for future reactor stairwell demolition. Underruns will be used to perform additional remediation work.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### DECEMBER 2000

REGULATORY ISSUES: <i>D&amp;D</i>	
<p><b>D&amp;H Reactor:</b> The approved Action Memorandum and Removal Action Work Plan (RAW) were scheduled for completion in FY00 for D &amp; H Reactors.</p> <p><b>Status:</b> Trending impacts to schedule. The Action Memo has been signed and was transmitted from Ecology to DOE. Informal comments on the RAW were addressed with Ecology and approved mid-November. Verbal approval to proceed with some work at D &amp; H Reactors was received from Ecology as per the draft RAW in late October.</p>	<div style="border: 3px double black; padding: 5px; width: fit-content; margin: 0 auto;">Green</div>
<p><b>ISS Pourback Subcontract:</b> The current contract for pourback work terminates in December, but additional funds for continuing ISS has not been authorized.</p> <p><b>Status:</b> RMT approved moving forward on pourbacks, a BCP is in process. The work will be treated as emerging work and will be offset by the deletion of the enclosure from the F Reactor FSB. Without an overall ISS funding appropriation, ISS work will need to be curtailed in December when the partial FY01 funding has been expended.</p>	<div style="border: 3px double black; padding: 5px; width: fit-content; margin: 0 auto;">Green</div>
<p><b>233-S Waste Handling:</b> Handling packaged waste at 233-S resulted in a minor release of contamination in the weather enclosure radiological boundary area. Work was halted for a short time until the area was decontaminated.</p> <p><b>Status:</b> A waste package handling methodology is being established that minimizes package size and package handling between removal from the building until placement in a designated waste container. This should reduce the potential for packaging failures.</p>	<div style="border: 3px double black; padding: 5px; width: fit-content; margin: 0 auto;">Green</div>
<p><b>233-S Process Hood:</b> To support FY01 decommissioning activities in the 233-S Process Hood, non-destructive assay (NDA) support (provided by FH-PFP) was planned on a full-time basis. To-date, the support has been less than required. Although NDA support has not yet become a critical path item, it has the potential to impact the rate of equipment removal from the process cell.</p> <p><b>Status:</b> Continue to work with the NDA provider to insure adequate support exists on a continuing basis.</p>	<div style="border: 3px double black; padding: 5px; width: fit-content; margin: 0 auto;">Green</div>
EXTERNAL ISSUES (i.e. HAB, Congress, etc.): <i>D&amp;D</i>	
None identified at this time.	
DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): <i>D&amp;D</i>	
None identified at this time.	
INTEGRATION ACTIVITIES: <i>D&amp;D</i>	
None identified at this time.	

# **Program Management and Support (PM&S)**

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
DECEMBER 2000**

## SECTION B – RESTORING THE RIVER CORRIDOR

**Financial / Performance Measures data as of month-end October.  
All other data as of November 30, 2000 (unless otherwise noted).**

### Program Management & Support (PM&S)

#### ACCOMPLISHMENTS: PM&S

##### **COMPLIANCE, QUALITY, SAFETY, AND HEALTH:**

**Safety and Health:** RadCon established a release plan for 2,500 lead bricks at a 100 H Area remediation waste site. This release plan is a result of a consent agreement and final order issued by the EPA, Region 10 to close out the findings of the 1998 multi-media inspection. Each of the 2,500 lead bricks will be surveyed and released in accordance with the requirements set forth in DOE Order 5400.5 (Radiation Protection of the Public and Environment) and all applicable DOE Secretarial memoranda addressing the release of such material.

**Compliance and Quality Programs:** During October, Compliance and Quality Programs identified two compliance areas needing correction. Two reports were filed with the DOE noncompliance tracking system (NTS) for Price Anderson Amendment Act issues. One report identified a subcontractor that failed to adequately implement a Quality Assurance Program Plan. The other report identified events involving failure to adequately control alpha contamination. An in-depth analysis for potential common causes is underway. A report will be issued to the NTS by December 4.

##### **PROGRAM AND PROJECT SUPPORT:**

**External Affairs:** On October 10-11, ER participated in the "Hanford 2012: Accelerating Cleanup and Shrinking the Site" workshop that was conducted for the Hanford Advisory Board (HAB) Committee members to provide a better understanding of the drivers, assumptions, and key policy issues underlying RL's new management direction for site cleanup.

Support was provided to the Oregon Office of Energy in planning the October 23-24 Oregon Hanford Waste Board meeting. Presentations were given on the ER Project Update and the 618-11 Burial Ground sampling activities.

##### **ENGINEERING AND TECHNOLOGY:**

**Environmental Technologies:** Hanford comments on Ecology's proposed revisions to the Model Toxic Control Act (MTCA) cleanup regulations (WAC 173-340) were submitted to Ecology. The comments raised concerns on many aspects of the proposed changes, particularly with regard to the proposed methodology for establishing cleanup levels for ecological receptors.


The chemical management verification report was completed and distributed to Chemical Custodians, Environmental Leads, and applicable Project and Functional Managers. Overall, the ERC is effectively implementing the Chemical Management Program (CMP), and field personnel have improved tracking of chemicals consistent with CMP requirements.

Green

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

DECEMBER 2000

<b>ACCOMPLISHMENTS continued: PM&amp;S</b>	
<p><b>PLANNING AND CONTROLS:</b></p> <p><i>Work progressed in developing the ER Project Baseline Update (multi-year work plan) that is scheduled for completion on December 15.</i></p> <p><i>The FY00 year-end review document was presented to HQ during their FY00 year-end briefing in mid-November.</i></p>	
<b>SAFETY/ISMS/CONDUCT OF OPERATIONS: PM&amp;S</b>	
<i>See Executive Summary.</i>	
<b>BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVMENT: PM&amp;S</b>	
<i>None identified at this time.</i>	
<b>LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: PM&amp;S</b>	
<i>None identified at this time.</i>	
<b>MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): PM&amp;S</b>	
<ul style="list-style-type: none"> <li>• <b>DOE Secretarial:</b> <i>None identified at this time.</i></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>DOE EM Performance Agreement:</b> <i>None identified at this time.</i></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>TPA Milestones:</b> <i>None identified at this time.</i></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>DNFSB Commitment:</b> <i>None identified at this time.</i></li> </ul>	

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

DECEMBER 2000

### PERFORMANCE OBJECTIVES: *PM&S*

Comprehensive Measures – Approx. 10% Available Fee Pool Total Positive Value  
Total Negative Value cannot exceed earnings under the Comprehensive PI

Comprehensive Measures	Fee Allocation	Task	Status
<b>Safety</b>	Negative Fee up to 50% of fee available for comprehensive PI	<ul style="list-style-type: none"> <li>The Contractor shall protect worker safety and health, public safety and health, and the environment.</li> </ul>	No concerns identified during October.
<b>Operational Excellence</b>	Positive Fee up to 55% of fee available for comprehensive PI	<ul style="list-style-type: none"> <li>Migrate systems to facilitate PBS restructuring in FY02 – 75%</li> <li>Rebaseline completed per Baseline Updating Guidance (BUG) – 20%</li> <li>Integrate technology into Projects – 10%</li> <li>Achieve pollution prevention/waste minimization – 10%</li> </ul>	All activities on schedule.
<b>Effective Leadership</b>	Positive Fee up to 45% and Negative Fee up to 50% of fee available for comprehensive PI	<ul style="list-style-type: none"> <li>Management Effectiveness</li> <li>Customer Satisfaction</li> <li>Effective Financial Management</li> </ul>	No concerns identified during October.

Green

### PERFORMANCE MEASURES/METRICS: *PM&S*

*\*A technology deployment plan will be developed in January 2001 as identified in the DWP.*

Technology Deployment	PBS	Planned Date	(F)/(A) Date
<i>*N/A</i>	N/A	N/A	N/A

### STRETCH AND SUPERSTRETCH GOALS: *PM&S*

*None identified at this time.*

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

DECEMBER 2000

### PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE): *PM&S*

- Schedule:**

Program Management & Support	BCWS	BCWP	Variance
	\$K	\$K	\$K
ER10 ERC Program Management & Support	2,326	2,312	-14
ER10 RL Program Management & Support	440	41	-399
<b>TOTAL PM&amp;S</b>	<b>2,766</b>	<b>2,353</b>	<b>-413</b>

Green

**PBS-ER10 – Program Management and Support**  
*Schedule Variance = (\$413K); (14.9%)*

**Cause:** Late billing of site-wide assessments.

**Resolution:** None.

- Cost:**

Program Management & Support	BCWP	ACWP	Variance
	\$K	\$K	\$K
ER10 ERC Program Management & Support	2,312	1,995	317
ER10 RL Program Management & Support	41	87	-46
<b>TOTAL PM&amp;S</b>	<b>2,353</b>	<b>2,082</b>	<b>271</b>

Green

**PBS-ER10 – Program Management and Support**  
*Cost Variance = \$271K; 11.5%*

**Cause:** Variance due to year-end accrual reversal for material purchases and rate adjustment. Inaccuracies in distribution of actual costs versus level loading the budget.

**Resolution:** None; variance will self correct.

### REGULATORY ISSUES: *PM&S*

*None identified at this time.*

### EXTERNAL ISSUES (i.e. HAB, Congress, etc.): *PM&S*

*None identified at this time.*

### DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): *PM&S*

*None identified at this time.*

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT**  
**ENVIRONMENTAL RESTORATION**  
**DECEMBER 2000**

**INTEGRATION ACTIVITIES: PM&S**

*Bechtel Hanford, Inc. (BHI) closed a significant RL action item in October with implementation of an Employee Job Task Analysis (EJTA) program for subcontractors. BHI, along with Pacific Northwest National Laboratory (PNNL) and Fluor Hanford (FH), spent two years in developing a site-wide program to assess hazards and perform medical monitoring for subcontractor personnel who might be at risk of potential exposure. The primary implementation tool for the Hanford contractors involves incorporation of specific contract language and partnering with the subcontractor to ensure employees who are at risk of exposure are captured in the EJTA database.*

*In October, a joint BHI, FH, and PNNL team conducted a "Hanford Analytical Services" presentation at the National Sample Management Organization Workshop at Oak Ridge National Laboratory. Hanford Analytical Services is a joint RL, BHI, FH, and PNNL board that coordinates laboratory services for the Hanford Site. HQ representatives complimented the team on their presentation and stated that the Hanford Analytical Services board provides a good model for other DOE sites.*

**Green**

Richland Operations Office  
Environmental Restoration

# Environmental Management Performance Report

## Section C - Central Plateau Information

December 2000

- Groundwater / Vadose Zone Integration Project
- Surveillance / Maintenance & Transition Projects



***Focused on Progress...***

***Focused on Outcomes!***



**Department of Energy**  
Richland Operations Office



**Bechtel Hanford, Inc.**  
Environmental Restoration Contractor

# **Groundwater/Vadose Zone Integration Project (GW/VZ)**

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT**  
**ENVIRONMENTAL RESTORATION**  
DECEMBER 2000

## SECTION C – TRANSITIONING THE CENTRAL PLATEAU

Financial / Performance Measures data as of month-end October.  
All other data as of November 30, 2000 (unless otherwise noted).

### Groundwater/Vadose Zone Integration Project(GW/VZ):

#### ACCOMPLISHMENTS: GW/VZ

##### **GW/VZ INTEGRATION PROJECT:**

**Peer Review:** The Integration Project Expert Panel meeting #8 was conducted in October. This meeting focused on Columbia River issues and resolutions.

**Science and Technology:** The draft of the Risk Assessment Science and Technology Plan was completed in October. This plan answered a second set of questions to provide the basis for a November meeting with the National Academy of Science committee.

**System Assessment Capability:** Historical matching was initiated with the System Assessment Capability (SAC) Rev. 0 capability. The purpose of historical matching is to assess the ability of SAC Rev. 0 predictions to match observations and identify improvements needed prior to the initial assessment.

##### **GROUNDWATER MANAGEMENT:**

**In Situ Redox Manipulation Project:** All ten wells planned were chemically injected in FY00, and chemical barrier withdrawal on two wells was completed during October. Only one well remains to complete withdrawal activities, which is scheduled for completion in December.

**Long-Term Groundwater Monitoring:** A RCRA well installation workshop was held on October 4 with Ecology, RL, Office of River Protection (ORP), and contractors. The list of recommended wells for installation in calendar year 2001 to support the Tri-Party Agreement M-24 milestone was presented to Ecology.

**Tritium Investigation:** Several activities were completed during October in support of the tritium investigation in the 618-11 Burial Ground. Two boreholes were drilled (one on the north side, and the other on the east side of the burial site). Grab samples were obtained and submitted for analysis. Borehole decommissioning was also completed as part of the continuing investigation.

**Summary of Five Pump and Treat Systems:** All groundwater pump and treat systems operated above the planned 90% availability levels in October. Since system inception, the five pump and treat systems have processed over 4.4 billion liters of groundwater, removing approximately 4,713 kilograms of carbon tetrachloride, 202 kilograms of chromium, and 0.91 curies of strontium. Approximately 118 million liters of groundwater have been processed in FY01, removing approximately 131 kilograms of carbon tetrachloride, 9 kilograms of chromium, and 0.022 curies of strontium.

**100-HR-3 Pump and Treat System:** Approximately 27.8 million liters of groundwater were processed in October removing approximately 4.5 kilograms of chromium. Approximately 971 million liters of groundwater have been processed from inception to date, with 96.1 kilograms of chromium removed.

Green

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

### DECEMBER 2000

#### ACCOMPLISHMENTS continued: GW/VZ

**100-KR-4 Pump and Treat System:** Approximately 33.8 million liters of groundwater were processed in October removing approximately 4.1 kilograms of chromium. Approximately 843 million liters of groundwater have been processed from inception to date, with 106.2 kilograms of chromium removed.

**100-NR-2 Pump and Treat System:** Approximately 10.8 million liters of groundwater were processed in October, removing approximately 0.022 curies of strontium. Approximately 553 million liters have been processed from inception to date, with 0.910 curies of strontium removed.

**200-UP-1 Pump and Treat System:** Approximately 9.2 million liters of groundwater were processed in October. From inception to date, approximately 446 million liters have been transported to the Effluent Treatment Facility (ETF) for processing. 343.0 million liters were previously processed prior to utilizing the ETF.

**200-ZP-1 Pump and Treat System:** Approximately 36.3 million liters of groundwater were processed during October removing 131.3 kilograms of carbon tetrachloride. From inception to date, approximately 1.3 billion liters have been processed, with 4,713 kilograms of carbon tetrachloride removed.

**200-ZP-2 Vapor Extraction System:** The 200-ZP-2 soil vapor extraction system was placed off-line in FY00, in order to monitor and evaluate any rebounding of contaminant to static conditions. The resulting data will be used to evaluate the effectiveness of remediation on contaminants within the vadose zone. The passive vapor extraction system (installed in selected vadose zone wells) is performing as designed. Monthly sampling will continue. A meeting was held on November 7 with the regulators, RL, and contractors to discuss a path forward on Dense Non-Aqueous Phase Liquid (DNAPL) investigation. It was agreed that the Partitioning Interwell Tracer Test (PITT) was too expensive for a speculative location of the test. The PITT test will be put on hold while further conventional characterization is performed.

#### **200 AREA ASSESSMENTS:**

Regulator approval was received for the 200-CS-1 and 200-CW-5 Operable Unit (OU) Rev. 0 Work Plans. Assessment field work can now proceed in these two OUs.

A Tri-Party Agreement change package was also submitted to the regulators proposing replacing the 200-PW-4 OU with the 200-PW-1 OU, which has a higher risk for carbon tetrachloride sites.

Green

#### SAFETY/ISMS/CONDUCT OF OPERATIONS: GW/VZ

See Executive Summary.

#### BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: GW/VZ

None identified at this time.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT ENVIRONMENTAL RESTORATION

DECEMBER 2000

<b>LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS:</b> <i>GW/VZ</i>
<i>None identified at this time.</i>
<b>MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS):</b> <i>GW/VZ</i>
<ul style="list-style-type: none"><li>• <b>DOE Secretarial:</b> <i>None identified at this time.</i></li></ul>
<ul style="list-style-type: none"><li>• <b>DOE EM Performance Agreement:</b> <i>None identified at this time.</i></li></ul>

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT**  
**ENVIRONMENTAL RESTORATION**  
DECEMBER 2000

**MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS) continued: GW/VZ**

• **TPA Milestones:**

<b>Milestone</b>	<b>Description</b>	<b>Due Date</b>	<b>(F)/(A) Date</b>
<b>M-13-00K</b>	Submit One (1) 200 NPL RI/FS (RFI/CMS) Work Plan	12/31/00	12/29/00 (F)
<b>M-13-25</b>	Submit Uranium Rich Process Waste Group (200-PW-2) Work Plan	12/31/00	12/29/00 (F)
<b>M-24-46</b>	Install Two (2) Additional Wells at SST WMA S-SX	12/31/00	9/14/00 (A)
<b>M-24-47</b>	Install Four (4) Additional Wells at SST WMA T	12/31/00	12/14/00 (F)
<b>M-24-48</b>	Install Four (4) Additional Wells at SST WMA TX-TY	12/31/00	12/31/00 (F)
<b>M-24-00L</b>	Install RCRA Groundwater Monitoring Wells at the Rate of up to 50 in Calendar Year 2000 if Required	12/31/00	12/31/00 (F)
<b>M-16-27A</b>	Complete 100-HR-3 Phase I, ISRM Barrier Emplacement	12/31/00	12/22/00 (F)
<b>M-24-49</b>	Install Four (4) Additional Wells at SST WMA S-SX	4/30/01	1/25/01 (F)
<b>M-24-50</b>	Install One (1) Additional Well at SST WMA TX-TY	4/30/01	12/28/00 (F)
<b>M-13-26</b>	Submit Plutonium/Organic-Rich (200-PW-1) Work Plan	6/30/01	6/30/01 (F)
<b>M-15-38A</b>	Submit Draft A Gable Mountain Pond / B Pond and Ditch Cooling Water Group Feasibility Study and 216-B-3 Pond System RCRA TSD Unit Closure Plan and Submit Draft A Gable Mountain Pond / B Pond and Ditch Cooling Waste Group Proposed Plan / Proposed RCRA Permit Modification	11/30/01	11/30/01 (F)
<b>M-13-00L</b>	Submit 3 200 NPL RI/FS (RFC/CMS) Work Plans	12/31/01	12/31/01 (F)
<b>M-16-27B</b>	Complete 100-HR-3 Phase II, ISRM Barrier Emplacement (Planning, Well Installation, and Barrier Emplacement)	12/31/01	12/31/01 (F)
<b>M-24-00M</b>	Install RCRA Groundwater Monitoring Wells at Rate of up to 50 in Calendar Year 2001 if Required	12/31/01	12/31/01 (F)

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- **DNFSB Commitment:**  
None identified at this time.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

DECEMBER 2000

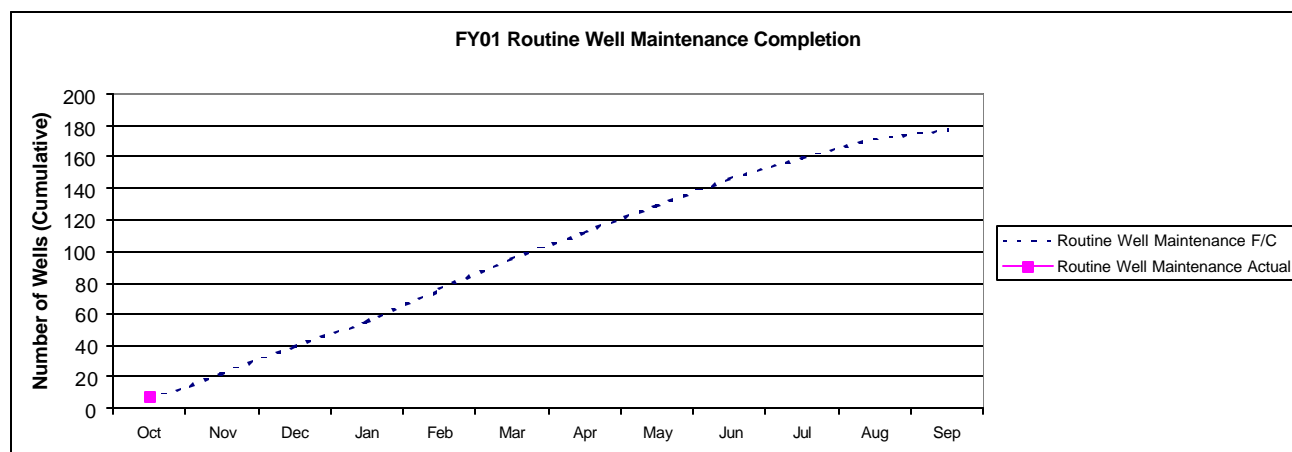
### PERFORMANCE OBJECTIVES: GW/VZ

PI	% FY01 Fee Pool Less 10% for Comprehensive	PI Allocation of Fee	Task	Status
<b>GW – ISRM Barrier</b>	3%	3%	<ul style="list-style-type: none"> <li>Drill 24 wells and inject sodium dithionite by 9/30/01</li> </ul> <p>CV &lt;5.0%; SV &lt;7.5% for BHI portion of ER-08</p>	<p>Critical path activities on schedule. Schedule variance impacted by tritium investigation will be incorporated into baseline via BCP-21003.</p>
<b>GW – 618-11 Tritium Plume</b>	3%	3%	<ul style="list-style-type: none"> <li>Drill wells to establish 20,000 pCi/L Contour, Collect Groundwater Samples by 9/30/01 (<b>*Stretch</b>)</li> </ul> <p>CV &lt;5.0%; SV &lt;7.5% for BHI portion of ER-08</p>	<p>Work has commenced via approved trend.</p>

Green

### PERFORMANCE MEASURES/METRICS: GW/VZ

Green



# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

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### STRETCH AND SUPERSTRETCH GOALS: *GW/VZ*

FY01 GW/VZ "Stretch" Goals	Estimated PI Dollars (K)	Approved BCPs (K)
<i>Tritium Plume at 618-11 Burial Ground – Collect GW Samples by 9/30/01</i>	\$306.0K	
<b>S/Total GW – Vadose Zone Stretch Goals:</b>	<b>\$306.0K</b>	<b>\$0K</b>

Green

### PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE: *GW/VZ*)

- Schedule:**

GW/VZ Integration Project	BCWS	BCWP	Variance
	\$K	\$K	\$K
<i>ER02 200 Area Remedial Actions</i>	180	111	-69
<i>ER08 Groundwater Management</i>	2,400	1,895	-505
<i>VZ01 Groundwater/Vadose Zone</i>	1,460	1,076	-384
<b>TOTAL Groundwater</b>	<b>4,040</b>	<b>3,082</b>	<b>-958</b>

Green

**PBS-ER02 – 200 Area Remedial Action (Assessment)**

Schedule Variance = **(\$69K); (38.3%)**

**Cause:** Work on the PW-1 Plutonium-Rich Process Work Remedial Investigation Feasibility Study (RI/FS) Work Plan was delayed in starting pending authorization to proceed. A baseline change proposal (BCP) for 200 Assessment work was not approved until October 11.

**Resolution:** None, work was initiated in early October; schedule is expected to be recovered.

**Cause:** Work on the Gable Mountain/B Pond Feasibility Study is behind schedule due to resource availability.

**Resolution:** Interviews for open requisitions are taking place; schedule is expected to be recovered.

**PBS-ER08 – Groundwater Management**

Schedule Variance = **(\$505K); (21.0%)**

**Cause:** RCRA well drilling schedule impact caused by the ERC priority for tritium drilling at the 618-11 waste site (one drilling crew released two weeks to support this exercise).

**Resolution:** None; drilling crew was released to resume program drilling by month end; full recovery expected.

**Cause:** Sample collection was impacted by the overall site sampling backup.

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### PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE) continued: GW/VZ

**Resolution:** The well sampling subcontractor has increased the sampling teams from two to three to recover schedule.

#### **PBS-VZ01 – Groundwater/Vadose Zone**

Schedule Variance = **(\$384K); (26.3%)**

**Cause:** Soil Waste Inventory – staff working on carryover items from FY2000. Work planned after DWP was finalized. Field Investigations at Representative Sites – distribution of contaminated samples behind schedule due to date for receipt of samples from SX-108 later than planned and unresolved ES&H issues. Contracts for other national laboratory involvement in Field Investigation at Representative Sites, Vadose Zone Transport Field Study, and Transport Modeling tasks not in place because of Continuing Resolution.

**Resolution:** BCP will be prepared to use variance on Soil Waste Inventory Task for other work. SX-108 samples distributed; contracts with the other national laboratories now in place; offline schedules prepared for tasks to ensure completion of milestones for input to RPP S-SX Field Investigation Report.

#### • **Cost:**

GW/VZ Integration Project	BCWP	ACWP	Variance
	\$K	\$K	\$K
ER02 200 Area Remedial Actions	111	102	9
ER08 Groundwater Management	1,895	1,593	302
VZ01 Groundwater/Vadose Zone	1,076	917	159
<b>TOTAL Groundwater</b>	<b>3,082</b>	<b>2,612</b>	<b>470</b>

Green

#### **PBS-ER02 – 200 Area Remedial Action(Assessment)**

Cost Variance = **\$9K; 8.1%**

**Cause:** There was a \$9K cost associated with preparing for and conducting site tours, which was not budgeted.

**Resolution:** Identify overruns in Trend Register.

#### **PBS-ER08 – Groundwater Management**

Cost Variance = **\$302K; 15.9%**

**Cause:** Less non-manual staff required on RCRA well drilling than planned; a processing delay in the October accruals on sampling and analysis.

**Resolution:** Accrual issues will be corrected. Cost underruns will be used to perform additional remediation work.

#### **PBS-VZ01 – Groundwater/Vadose Zone**

Cost Variance = **\$159K; 14.8%**

**Cause:** Accruals for National Laboratory costs (FY00 carryover) were not made in October.

**Resolution:** Accruals will be corrected in November.

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#### REGULATORY ISSUES: GW/VZ

**Monitoring Wells:** Tritium investigation is being conducted near the 618-11 Burial Ground.

Green

**Status:** The groundwater grab results from the boreholes drilled for the 618-11 soil gas investigation have been evaluated. The groundwater grabs from boreholes C3264 and C3265 were to assess tritium levels in the groundwater and assist in the determination of a correlation between groundwater concentrations and the measured helium ratios.

As previously reported, borehole C3264 (about midway along the northern boundary of the 618-11 Burial Ground) was completed to groundwater and a groundwater grab sample was collected on October 9. The initial results from the C-32-64 groundwater grab indicated tritium levels less than 30,000 pCi/liter. A split sample taken by the Department of Health gives the result of about 6,000 pCi/liter. The detection limits were much lower at laboratory used by the Department of Health.

Borehole C3265 (in the Energy Northwest parking lot, east of the 618-11 Burial Ground) was completed to groundwater and a groundwater grab sample was collected on October 13. The results of this sample is 1.5 million pCi/liter. This borehole is about 80 meters downgradient from well 699-13-3A. The split sample taken by the Department of Health corroborates this result.

**200-ZP-1/200-ZP-2:** Need for enhanced characterization, enhance removal efficiency, and Dense Non-Aqueous Phase Liquid (DNAPL) investigation.

Green

**Status:** A preliminary cost estimate and proposal submitted by a potential contractor has been reviewed by a subpanel of the GW/VZ Integration Project's Expert Panel. A meeting was held on November 7 with the regulators, the DOE, and Contractors to discuss a path forward on DNAPL Investigation. It was agreed that the Partitioning Interwell Tracer Test was too expensive for a speculative location of the test. The test will be put on hold for the time being while further conventional characterization is performed. We will meet again in early December with the regulators and DOE to plan characterization efforts. A concurrent effort is underway to submit a Groundwater initiative proposal for DNAPL Investigation and Remediation.

**200 Area Remedial Investigation/Feasibility Study:** Approximately 800 contaminated soil sites in the 200 Area, which have been grouped into 23 process-based operable units, are to be characterized by 2008 and remediated by 2018. Inadequate funding availability projections do not support requirements.

Yellow

**Status:** Tri-Party Agreement change packages for the 200-CW-1, 200-CW-5, and 200-CS-1 Operable Units containing RI/FS interim milestones were approved on August 23. In addition, RL is currently working on ways to revise the existing long-term strategy for prioritizing the 200 Area assessment and remediation activities in conjunction with other site cleanup decisions. In October, a BCP was approved for \$4.5M to incorporate scope into the baseline. RL is also seeking to justify and identify additional funds for characterization. RL is pursuing \$2.5M additional authorization from other RL funding sources, and the ERC has identified \$2.0M (from FY00 efficiencies) for FY01 workscope. The funding for the \$2.5M needs to be identified by RL before December in order to place contracts.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

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REGULATORY ISSUES continued: GW/VZ	
<p><b><u>WASTE MANAGEMENT ISSUES:</u></b></p> <p><b><i>Purgewater Secondary Waste Management:</i></b> <i>There is a discrepancy in the interpretation of the Purgewater Strategy applicability. Direction was given by RL to become compliant with all land disposal restriction (LDR) requirements.</i></p> <p><b><i>Status:</i></b> <i>An interim phase was initiated, and a screening was completed for the potential listed waste codes to be applied. Activities on Site will be conducted as planned, with a conservative application of the listed waste codes to the secondary wastes. A long-term resolution has also been accepted by RL, to conduct a Listed Waste Applicability Assessment to minimize the listed waste codes to be applied on this waste stream. Meetings with the regulators to resolve pending issues are being planned to take place within the next two weeks. A letter coordinating the site contractors suggestions for improving the purgewater strategy was issued November 20 per DOE's request.</i></p>	<div style="border: 3px double black; padding: 5px; width: fit-content; margin: 0 auto;">Green</div>
EXTERNAL ISSUES (i.e. HAB, Congress, etc.): GW/VZ	
None identified at this time.	
DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): GW/VZ	
None identified at this time.	
INTEGRATION ACTIVITIES: GW/VZ	
<p><i>ER continues to work closely with the River Protection Project (RPP) on vadose zone project plans and issues. RPP project manager presents related GW/VZ status to ER management at monthly ER project reviews.</i></p>	<div style="border: 3px double black; padding: 5px; width: fit-content; margin: 0 auto;">Green</div>

# **Surveillance/Maintenance and Transition Project (SM&T)**

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**SECTION C – TRANSITIONING THE CENTRAL PLATEAU**

**Financial / Performance Measures data as of month-end October.  
All other data as of November 30, 2000 (unless otherwise noted).**

**Surveillance/Maintenance & Transition Project (SM&T):**

**ACCOMPLISHMENTS: SM&T**

**Surveillance and Maintenance:** *S&M activities that were performed in October to ensure inactive facility integrity and safety included the following:*

- *Completion of various leaking roof repairs at B Reactor.*
- *Completion of asbestos repairs on B Reactor roof. Significant deterioration in the asbestos insulation on several pipes running across the roof of B Reactor was discovered during vent sealing on the reactor roof. An advance work authorization was approved to proceed with immediate cleanup and temporary abatement of the asbestos pending preparation and approval of a BCP.*
- *Continuation of B Reactor engineering evaluation/cost analysis (EE/CA). Options include no action, S&M, ISS, and full hazard mitigation for public access.*
- *Receipt of approval from the Washington State Department of Health on October 17 to remove the 18-meter (60-foot) sample line from the PUREX stack. The sample line shutdown will result in lower maintenance costs by using only the 23-meter (74-foot) sample line.*
- *Initiation of roof repairs on U Plant (221-U Building). Work consisted of making repairs to three roof sections and performing infrared scanning on all other expansion joint areas to detect any leaking areas that will be repaired in the spring after winter weather subsides.*
- *Implementation of the Job Hazard Analysis (JHA) process for a several S&M activities.*
- *Implementation of freeze protection for all assigned S&M facilities.*

**Canyon Disposition Initiative:** *A total of nine concrete coring samples were obtained from process cells located in U Plant in support of the Canyon Disposition Initiative (CDI). These samples were successfully ground into a slurry for analytical review. Sample contamination and dose rates were low enough that the work was accomplished in the canyon without a glove box.*

**Green**

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<b>SAFETY/ISMS/CONDUCT OF OPERATIONS: SM&amp;T</b>
<i>See Executive Summary.</i>
<b>BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: SM&amp;T</b>
<i>None identified at this time.</i>
<b>LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: SM&amp;T</b>
<i>None identified at this time.</i>
<b>MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): SM&amp;T</b>
<ul style="list-style-type: none"> <li>• <b>DOE Secretarial:</b> <i>None identified at this time.</i></li> </ul>
<ul style="list-style-type: none"> <li>• <b>DOE EM Performance Agreement:</b> <i>None identified at this time.</i></li> </ul>
<ul style="list-style-type: none"> <li>• <b>TPA Milestones:</b> <i>None identified at this time.</i></li> </ul>
<ul style="list-style-type: none"> <li>• <b>DNFSB Commitment:</b> <i>None identified at this time.</i></li> </ul>
<b>PERFORMANCE OBJECTIVES: SM&amp;T</b>
<i>None identified at this time.</i>
<b>PERFORMANCE MEASURES/METRICS: SM&amp;T</b>
<i>None planned in FY01.</i>
<b>STRETCH AND SUPERSTRETCH GOALS: SM&amp;T</b>
<i>None identified at this time.</i>

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

## ENVIRONMENTAL RESTORATION

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### PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE): SM&T

• **Schedule:**

Surveillance/Maintenance & Transition Project	BCWS	BCWP	Variance
	\$K	\$K	\$K
ER05 Surveillance & Maintenance	1,114	980	-134
ER07 Long-Term Surveillance & Maintenance	1	1	0
<b>TOTAL SM&amp;T</b>	<b>1,115</b>	<b>981</b>	<b>-134</b>

Green

**PBS-ER05 – Surveillance and Maintenance**

Schedule Variance = (\$134K); (12.0%)

**Cause:** Behind schedule on concrete core analysis, and U Plant roof repair.

**Resolution:** The core samples were successfully ground into a slurry and transported for analytical review; roof repairs were completed in early November.

**Cause:** Behind schedule due to additional HEXONE sampling and schedule requirements impacting SAP development, engineering of sampling requirements, work package development, and unreviewed safety questions (USQ) review.

**Resolution:** A BCP was approved to add the new sampling and scheduling requirements.

**PBS-ER07 – Long-Term Surveillance and Maintenance (BCWS \$59K for FY01)**

Schedule Variance = N/A

• **Cost:**

Surveillance/Maintenance & Transition Project	BCWP	ACWP	Variance
	\$K	\$K	\$K
ER05 Surveillance & Maintenance	980	832	148
ER07 Long-Term Surveillance & Maintenance	1	0	1
<b>TOTAL SM&amp;T</b>	<b>981</b>	<b>832</b>	<b>149</b>

Green

**PBS-ER05 – Surveillance and Maintenance**

Cost Variance = \$148K; 15.1%

**Cause:** Radiation survey costs were less than planned at REDOX and U Plant.

**Resolution:** Underruns will be used to perform additional remediation work.

**PBS-ER07 – Long-Term Surveillance and Maintenance (BCWS \$59K for FY01)**

Cost Variance = N/A

### REGULATORY ISSUES: SM&T

None identified at this time.

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<b>EXTERNAL ISSUES (i.e. HAB, Congress, etc.): SM&amp;T</b>
<i>None identified at this time.</i>
<b>DOE-RL &amp; HQ ISSUES/REQUESTS (not covered elsewhere): SM&amp;T</b>
<i>None identified at this time.</i>
<b>INTEGRATION ACTIVITIES: SM&amp;T</b>
<i>None identified at this time.</i>